BIOLOGICAL RHYTHMS AND SHIFT WORK

LEGAL AND REGULATORY ISSUES RELATED TO WORK SCHEDULES AND HOURS OF WORK

FINAL DRAFT

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Jan. 6, 1991

J952-81

INTRODUCTION

This chapter addresses legal and regulatory issues related to work schedules and hours of work. These will be referred to sometimes as "work schedules." In particular, the chapter discusses Federal and State regulation of work schedules, separately considering statutes and regulations dealing with work schedules currently in place and potential areas of regulation under existing authority. This discussion will consider several categories of statutory enactments:

- statutes relating directly to work schedules and hours of employment, such as the Fair Labor Standards Act and the Hours of Service Act (covering railroad employees);
- safety and health regulatory statutes not dealing directly with work schedules, such as the Occupational Safety and Health Act, directed expressly at working conditions, and the Railway Labor Act, covering both employee and public safety. To the extent that employee work schedules are shown to affect the safety and health of employees and of the public, these statutes could serve as an important source of legal authority to regulate schedules;
- statutes that protect the collective rights of employees. The Labor Management Relations Act (LMRA) is the most important example. Employee representatives acting pursuant to their rights under LMRA negotiate collective bargaining agreements which deal with work schedules.

The chapter also addresses a number of legal issues relating to work schedules. Among these issues are:

- the relationship between Federal and State regulation (preemption);
- various types of enforcement mechanisms to enforce the legal requirements, and their advantages and disadvantages;
- and the regulation of public employees where legal requirements are applicable.

Current Areas of Regulatory Action

A distinction in Federal regulatory structure should be emphasized at the outset. In some cases, such as the Hours of Service Act, relevant requirements are included in the statute and therefore could be modified only by legislative action. In other instances, the statutes provide the administrative agency with legislative authority and the relevant requirements are promulgated in rules issued by the agency. This is the pattern with respect to regulation of hours of work of air personnel by the Federal Aviation Administration (FAA), an agency in the U.S. Department of Transportation. Changes in these requirements could therefore be made by the agency through amendments of the rules, normally through notice and comment rulemaking.

Hours of Service Act (Railroads)

It is not surprising that the earliest Federal regulation of hours of work schedules took place in those industries such as transportation where public safety was an important factor. Early Federal safety regulation of railroads related to the integrity of the physical equipment. This legislation imposed requirements for safety appliances and equipment on railroad engines and cars (see Safety Appliance Act, 45 U.S.C. section 1 et seq. P.L. as amended). However, it was clear that significant hazards to employees and travelers existed because of the failure of employees responsible for operations of railroads to discharge their responsibilities in a safe manner. This led to enactment of the Hours of Service Act in 1907 (45 U.S.C. section 61 et seq.

34 Stat. 141 (1907)). The Supreme Court recognized in an early case that the purpose of this statute was to avoid the dangers that necessarily arise to employees and the public from permitting employees to work in a dangerous and hazardous activity for periods so long as to render them unfit to give service which is essential to their protection and the protection those entrusted to their care. (3) Responsibility for enforcement of this statute was originally assigned to the Interstate Commerce Commission, and, when the U.S. Department of Transportation was created in 1966, this responsibility was transferred to the Secretary of Transportation, and its agency, The Federal Railroad Administration (FRA) (4).

Although the Hours of Service Act has been amended several times since 1907 (5), its basic requirements have remained the same. In addition to the work schedule requirements in the law itself, FRA has issued rules implementing the Act that impose requirements for record keeping and reporting and governing construction of employee sleeping quarters (6). These rules include as Appendix A, a statement of Agency Policy and Interpretation of the Hours of Service Act (7).

The Hours of Service Act first defines its coverage as applying to any "common carrier engaged in interstate or foreign commerce by railroad." (8); an "employee" includes "an individual actually engaged in or connected with the movement of any train...." (9). Employees who perform this type of service and are covered commonly include locomotive engineers, firemen, conductors, trainmen and switchmen (9) The Act first makes it unlawful for a common carrier to "require or permit" an employee who has been "continuously on duty" for twelve hours to "continue" on duty or "go on duty" until he or she has had "at least ten consecutive hours off duty" (10). The Act also makes it unlawful to permit or require an employee to continue, or go, on duty when he or she has not had at least eight "consecutive hours off duty during the preceding twenty-four hours (11) The Act includes as "on-duty" time all time that the employee spends in connection with train movements as well as "all time" in the service of the

carrier (12). Time on-duty commences when an employee "reports for duty", ends when he or she is "finally released from duty" and includes "interim periods for rest at other than designated terminals" and less than four hours at designated terminals (13). An exception to these limitations is provided for crews of a wreck or relief train when the crew's work is related to an "actual emergency", in which case employees may remain on duty for 4 additional hours in any period of 24 consecutive hours (14).

The Act also prohibits the carrier from providing sleeping quarters to employees "which do not afford such employees an opportunity for rest free from interruption caused by noise under the control of the railroads in clean, safe and sanitary quarters" (15). Similarly, sleeping quarters may not be constructed within or in the immediate proximity of areas where railroad switching and bumping operation are performed (16) These requirements have been interpreted in FRA rules which, among other things, define the distance requirements for sleeping quarters and specify procedures for approval of construction plans for sleeping quarters by the FRA (17).

The Hours of Service Act contains separate hours limitations for other categories of employees, that is, those not "actually engaged in or connected with" train movements. The law makes it unlawful to require or permit an "operator, train dispatcher" or the employee who by the use of electrical or mechanical devices "dispatches, reports or transmits receives or delivers orders pertaining to or affecting train movements" to remain on-duty for more than 9 hours "whether consecutive or in the aggregate" in a 24 hour period in a place where 2 or more shifts are employed, and for 12 hours in a 24 hour period where one shift is employed. Special authorization for 4 hours of additional services is authorized "in case of emergency" in a 24 - hour period, but not exceeding 3 days in a 7 consecutive days (19) Other work schedule requirements are imposed for individuals engaged in "installing, repairing or maintaining signal systems" (20) The basic limitation is that such individual who has been continuously on duty for

12 hours may not continue on-duty without at least 8 consecutive hours off-duty during the preceding 24 hours (21). The statutory provision relating to signal system employees contains a detailed explanation of the 8-hour limitation (22) as well as a definition of "time on-duty" (23) and an exception for emergency service (24).

The Hours of Service Act includes an additional provision clarifying the legal relationships of that statute to provisions in collective bargaining agreements. The Act states that its provisions are "maximum permissible hours of service consistent with safety" (25). However, under this provision, mandatory maximum provisions are also proper subjects for collective bargaining" under the National Labor Relations Act and the Railway Labor Act, discussed below, and do not preclude a carrier and employee representative from entering into agreements providing greater limitations on employee work schedules (26).

A related statute but designed for an entirely different purpose is the Adamson Act, enacted in 1916, and codified together with the Hours of Service Act (27). The Adamson Act Establishes that 8 hours shall be deemed to be "a day's work"; this provision, however, explicitly says that this stipulation for a 8-hour day is "for the purpose of reckoning the compensation of services" (28). Thus, the Adamson Act does not bar longer than eight - hour work days, but rather provides that 8 hours is the workday for calculation of overtime under the Fair Labor Standards Act and under collective bargaining agreements. The Adamson Act may provide economic incentives for limiting work schedules, but does not regulate them directly. The application of the overtime provisions of the Fair Labor Standards Act to railroad employees is discussed below (29)

Enforcement of the Hours of Service Act, as noted, is assigned to the Secretary of Transportation (30) and the Secretary's duties under the Hours of Service Act are carried out by the Federal Railway Administration (31) The head of FRA (the Administrator) is appointed by the President with the advice and consent of the Senate, and the Administrator reports

directly to the Secretary of Transportation (32). The provisions' of the Hours of Service relating to the manner of enforcement of its provisions were significantly amended in 1988 by the Rail Safety Improvement Act of 1988 (33). The enforcement scheme of the FRA under the Hours of Service Act and related safety statutes will be discussed in more detail below. (34)

Persons violating requirements of the Hours of Service Act, including a railroad, and a railroad manager, supervisor, officer, or employees, are liable for civil money penalties. The penalties may be as high as $1000 "per violation", except that penalties are assessed against individuals only for "willful" violations. The statute expressly provides that an individual does not commit a "willful" violation where he or she acts under a "direct order" of a railroad official "under protest communicated to the supervisor" (35) FRA has discretion to decide, as it "deems reasonable", whether a penalty is to be assessed and the amount of the penalty up to the statutory maximum and where no compromise is reached with the offending party, it is the "duty" of the United States Attorney, upon receiving "satisfactory information", to sue to collect the penalty in a federal court under Federal Claims Collection Act (36). The statute also contains, with some limited exceptions, a two year statute of limitations (37).

The FRA statement of Agency policy (38) describes in detail the civil penalty process. Approximately 400 FRA safety inspectors and participating State inspectors "routinely" inspect railroad operations and equipment and also investigate "hundreds of complaints." where violations are found, a report is submitted to the FRA Office of Chief Counsel, which decides whether to assess a penalty, and the amount of the penalty in accordance with the policy guidelines of the Agency, and the facts in the individual case. Administrative review of any penalty assessment within FRA is provided and then, after a demand letter is sent, FRA must try to adjust or compromise the assessed penalty "based on a wide variety of mitigating factors."According to FRA, this system allow the efficient collection of civil penalties in amounts that "fit the actual offenses" without resort to time consuming and expensive litigation.

FRA asserts that over its history it has requested the Attorney General to bring suits to collect a penalty "on only a very few occasions". The Agency statement of policy also contains guidelines for the determination of whether a violation is"willful" and thus, for individuals, whether the violations may result in a penalty (39).

FRA's "most sweeping enforcement tool", although one that it has used only "sparingly", is the authority to issue emergency safety orders requiring the abatement of unsafe conditions or practices which "create an emergency situation involving a hazard of death or injury to persons" (40) After issuance of the order, it must be reviewed in a trial type hearing (4I) This emergency authority is "unique" because it can be used to address unsafe practices and conditions "whether or not they contravene an existing regulatory or statutory requirement" (42). This provision has been held by a U.S. court of appeals to apply to conditions or practices which are hazardous under the Hours of Service Act respecting sleeping accommodations, even though the requirements of the Hours of Service Act are enforced in court by the U.S. Attorney and not the FRA (43).

The Railway Safety Act which became law in 1970 (44) authorizes the Secretary of Transportation, through FRA, to issue rules "for all areas of railroad safety" to supplement those laws and rules already in effect, including those under the Hours of Service Act. However, FRA has not issued any rules respecting work schedules under the Railway Safety Act of 1970 (45) The scope of FRA authority under the Railway Safety Act of 1970 is discussed below in the section dealing with potential authority to regulate work schedules (46).

Motor Carrier Safety Act of 1984 - Federal Highway Administration

Congress stated in the preamble to the Motor Carrier Safety Act of 1984 (47) that the law's purpose was "to promote the safe operation of commercial motor vehicles", to "minimize dangers" to the health of the operators of those vehicles and of other employees whose employment "directly affects motor carrier safety", and to assure increased compliance with traffic laws and with various regulations issued under that Act (48) The Motor Carrier Safety Act (HCSA) covers "commercial motor vehicles," defined as including those with gross vehicle weight exceeding 10,001 pounds, vehicles designed to transport more than 15 person (including the driver) and vehicles used to transport certain hazardous materials (49). "Employees," which is defined to mean the operator of the vehicle, including an "independent contractor" while operating a commercial motor vehicle, mechanics, freight handlers and any other individual, other than an employer, whose employment "directly affects commercial motor vehicle safety" (50), Federal, State and Local employers are not covered by the Act. (51)

The Secretary of Transportation is required to issue regulations pertaining to "commercial motor vehicle safety "which, at a minimum," must ensure relevantly that "the physical condition of operators of commercial motor vehicles is adequate to enable them to operate such vehicles safely" and that the "operation" of the vehicles does not have "deleterious effect on the physical condition" of the operators (51) The responsibility of the Secretary of Transportation regarding motor carrier safety are exercised by the Federal Highway Administration (FHWA) headed by an Administrator, appointed by the President, with the advice and consent of the Senate (52) The responsibilities of FHA on motor carrier safety, in turn, are carried out by its Office of Motor Carriers. In issuing regulations, FHWA is required to use the notice - and - comment procedures of the Administrative Procedure Act (53), but MCSA mandates time limits for the issuance of regulations/ (54) FHWA is required to explain delays beyond stated time limits to Congress, including a statement of the resources assigned

and the project completion date MCSA also mandates that in issuing regulations FHWA will "consider...costs and benefits" of the regulation and consider state laws in the area in order "to minimize unnecessary preemption" of these State laws (56)

Each covered employer and employee is required to comply with FHWA regulations "which are applicable to his or her own actions or conduct" (57). A program by FHWA of periodic inspections and timely investigations of written complaints is required to determine compliance with applicable regulations.(58) The Surface Transportation Assistance Act of 1982 establishes procedures to protect employee "whistle blowers" from employer reprisal in the exercise of rights to file complaints and other actions relating to motor vehicle safety; protection is also afforded for the right of an employer to refuse to drive a vehicle if its operation would violate federal regulations or because of the employees's "reasonable apprehension of serious injury" to himself or the public due to the unsafe condition of the equipment (59). These procedures were upheld against due process challenge by the Supreme Court in 1985 (60).

The Secretary of Transportation's responsibility to issue regulations under MCSA of 1974 has been implemented in part by FHWA's regulations entitled, "Hours of Service of Drivers" (61). These regulations relate to maximum on-duty and driving time, drivers' record of on-duty status, and provisions for special circumstances. The regulations also contain provisions on automatic on-board recording devices (62) these provisions were issued pursuant to a 1988 Congressional statute mandating that FHWA initiate and complete within one year rulemaking on on-board monitoring devices which would provide that these devices will not be used "for the purpose of harassment of operators" (63).

Related commercial motor vehicle legislation are the Surface Transportation Assistance Act of 1982 (64) and the 1986 Commercial Motor Vehicle Safety Act tightened the regulation of licensing and testing of truck drivers (65) neither deals directly with work scheduling, however.

"Hours of Service" Regulations for Drivers

The basic work schedule limitation in FHWA regulations is that no driver may be required or permitted to drive:

(a) More than 10 hours following 8 consecutive hours off duty; and

(b) for any period after having been on duty 15 hours following 8 consecutive hours off duty; and

(c)for any period after having been on duty 60 hours in any 7 consecutive days if the motor carrier does not operate every day of the week; or

(d)for any period having been on duty 70 hours in any period of 8 consecutive days if the motor carrier operates every day of the week (66).

The regulations include several exceptions to these regulations, (67) and definitions of "on-duty" time to include waiting time, inspection time, time spent loading, unloading or repairing equipment, and time "in or upon any motor vehicle" even if not driving, but not time "spent resting in a sleeper berth" meeting the specific requirements of FHWA regulations. (68)

In the case of "any emergency", a driver may complete a run without violating the regulations "if such run could reasonably have been completed without such violation" (68) In the event of "adverse driving conditions" such as snow, sleet, fog or other adverse weather conditions, a driver may drive for two additional hours to complete a run or reach a safe place, except that in no event may a driver drive for more that 12 hours in the aggregate following

eight consecutive hours off-duty or after he has been on duty fifteen hours following 8 consecutive hours off duty (69). The regulations do not apply to carriers when transporting passengers or property in order to provide relief in the event of a natural disaster (70).

The regulations contain two methods for determining a driver's hours of service. Under the first, the carrier requires the driver to record his or her duty status for each 24 hour period on a specified grid or on a previously approved daily log, in combination with any company forms (71). As an alternative, regulations authorize a carrier to require the use of an on-boárd recording device in lieu of the manual recording otherwise mandated under (72). The recording device produces On demand, as a chart, electronic display or printout. The driver's hours of service status, including the sequence of duty status changes, and each day's starting time (73).

Enforcement

As discussed, the regulations issued under the MCSA are enforced by FHWA through periodic random inspections and inspections conducted in response to complaints (73) FHWA is authorized to impose civil penalties for violation of MCSA in various amounts specified in the Department of Transportation Authorization statutes (74) A penalty of up to $500 may be imposed for violations of record keeping requirements. Where there has been a "serious pattern of safety violations," other than record keeping, a civil penalty of up to $1,000 for each offense, may be assessed; however, total penalties may not exceed $10,000.00. If FHWA determines that a "substantial" health or safety violation occurred that has or reasonably could result in serious physical injury or death, a civil penalty of up to $10,000 may be imposed for each offense. No penalty may be imposed against an employee except for "gross negligence" or "reckless disregard of safety", in which case the penalty may not exceed $1,000 (75). A person is entitled to notice and a opportunity for a hearing before the penalty becomes final. FHWA has

issued rules of practice for motor carrier safety proceedings (76) The Attorney General of the United States is authorized to sue in a United States district commit to recover civil penalties accessed against a person (77).

The Department of Transportation statute also authorizes FHWA, if it finds that violations or a combination of violations "poses an imminent hazard to safety," to order a vehicle "out of service" or to order an employer to cease all or part of its commercial motor vehicle operations (78) Criminal penalties may be imposed for any person who "knowingly or willfully" violates the statute or regulations, and if the person violating is an employee, the penalty is limited and may be applied only if the unlawful activity could have led to death or serious injury (79).

FHWA's hours of service regulations also authorize special agents of the FHWA to declare a driver "out of service" and, therefore, ineligible to drive if it is determined that the driver has been on duty in excess of the maximum periods permitted in the regulations (80).

Relationships with Other Laws

The relationship of the jurisdictions of FHWA to that of the OSHA program will be considered later (81).

The Motor Carrier Safety Act of 1984 contains a number of provisions on preemption of State regulation of motor carrier safety. MCSA authorizes the Secretary of Transportation to review State regulations on motor carrier safety and to determine which may be enforced by the state and which may not. The Act generally preempts state commercial motor vehicle safety regulation. However, the Secretary may, upon review, allow state regulations with the same effect as the federal regulation, or, in some circumstances, more stringent state regulation, to continue in effect. In making these determinations, the Secretary receives recommendations of the Commercial Motor Vehicle Safety Regulatory Review Panel, which is

required to review State regulations and make determinations as to their safety effectiveness and whether they are the same as, more stringent or less stringent than parallel federal regulations. After rulemaking and based on the Safety Review Panel's determinations, State regulations may continue in effect. In addition, Federal safety standards would cease to be in effect in a state with its own commercial motor carrier safety program if the Secretary of Transportation determines that the nonenforcement of federal standards "is in the public interest and consistent with public safety." (82)

The Surface Transportation Assistance Act of 1982 (83) authorizes a program of grants to states for commercial motor vehicle safety enforcement program (84). The Secretary of Transportation may delegate to States receiving federal grants enforcement functions as the Secretary "deems appropriate" (85). State motor carrier safety programs are discussed more fully in the OTA 1988 report, Gearing Up For Safety (86)

National Transportation Safety Board

The National Transportation Safety Board (NTSB) is a separate and independent agency, comprising five members appointed by the President with the advice and consent of the Senate. (87) NTSB's primary responsibility is to investigate railway, aircraft, highway and marine, pipeline and hazardous material accidents in order to determine the "probable cause" of the accident and to make recommendations concerning transportation safety (88). Although NTSB has no direct regulatory authority and cannot require compliance actions, its recommendations are publicized and may be influential in a number of arenas. Indeed, the law requires the Secretary of Transportation to respond to NTSB safety recommendations, including giving a statement on his intention to address the recommendations, together with a proposed procedure and a time table for adopting the recommendation. The Secretary must

give a detailed explanation for his or her refusal to adopt NTSB recommendations (89) NTSB accident reports and other reports have addressed themselves on a number of occasions to issues relating to qualifications of commercial motor vehicle drivers (90).

Civil Air Safety - Federal Aviation Administration (FAA)

The Secretary of Transportation has the statutory duty "to promote safety of flight of civil aircraft in air commerce" by prescribing and revising from time to time, among others,"reasonable" rules and regulations "governing, in the interest of safety, the maximum hours or periods of service of airmen, and other employees of air carriers" (91). This section derives from the Federal Aviation Act of 1958 (92) When the Department Of Transportation was created in 1966, aviation safety authority was transferred to the Department and, in turn, to the Federal Aviation Administrative (FAA), an administration in the Department (93). FAA is headed by an Administrator, who is appointed by the President with the advice and consent of the Senate (94) In issuing rules, FAA must follow the requirements of the Administrative Procedure Act (95), and the rulemaking procedures contained in FAA's own rules (96). FAA has issued numerous safety regulations under its statutory holy, including relevantly duty-time and flight-time limitations and rest requirements for various categories of covered employees (97). Enforcement of FAA safety rules is governed by provisions of the Federal Aviation Act (98) and the implementing regulations(99), and includes agency authority to impose civil penalties, orders of compliance, criminal penalties, punitive damages, and injunctions (100).

Work Schedule Limitations

FAA has issued rules prescribing duty and flight limitations for pilots, flight dispatchers, engineers and crew members of various kinds of air carriers (1014). Because the rules are detailed, and complex only the flight time limitations and rest requirements for all crew members of domestic air carriers will be summarized (102).

Under the rules, a domestic air carrier is not permitted to assign, and a flight crew member may not accept an assignment for flight in scheduled an transportation or commercial flying if the crew member's total flight time will exceed 100 hours in a calendar month; 30 hours in 7 consecutive days; or 8 hours between required rest periods. In addition, a flight crew member may not be assigned flight time during the 24 consecutive hours preceding the scheduled completion of any flight segment, without a scheduled rest period during the 24-hour period of at least 9 consecutive hours of rest for less then 8 hours of scheduled flight time, 10 consecutive hours for 8-9 hours of scheduled flight times, or 11 consecutive hours of rest time for 9 or more flight hours. These rest requirements may be reduced in certain circumstances if a rest period of a specified length is scheduled to begin no later than 24 hours after the reduced rest period.

The rules further require that the crew member will be relieved of all further duty for at least 24 hours during any 7 consecutive days, and prohibits the assignment or acceptance of any duty during "any scheduled rest period." The rules also provide that flight time does not include time spent in transportation provided by the carrier to the crew member to and from the airport at which he or she will serve as a crew member and flight time when the airplane does not reach its destination within the scheduled time because of circumstances, beyond the control of the carrier (103).

Separate FAA rules prescribe flight time limitations prescribe flight time limitations for pilots and other flight crew members of flag air carriers (104) and of supplemental air carriers and commercial operators (105).

Enforcement

The Federal Aviation Administration enforces the safety requirements of the Federal Aviation Act by means of civil and criminal penalties. A person violating the statute or regulations issued under the statute is subject to a civil penalty of up to $1000 for each violation, while a "person who operates aircraft for the carriage of persons or property for compensation or hire" is subject to a penalty of up to $10,000 for each violation. In either event, where the violation is a "continuing" one, each day of the violation or each flight on which the violation occurs is a "separate offense" (106). Civil penalties may be compromised by the Secretary of Transportation.Any person "knowingly and willfully" violating the statute or regulations is subject to criminal penalties: violations are deemed a misdemeanor with a $500 fine for a first offense and $2000 for subsequent offenses, with each day of a continuing violation constituting a separate offense (107).

The FAA is authorized to initiate investigations of matters within its jurisdiction (108), and to respond to written complaints for which there is reasonable grounds for investigation (109). The procedures for the collection of penalties are prescribed by statute (110), and in detailed regulations issued by FAA (111). FAA orders are subject to review by the U.S. courts of appeals (112).

Where FAA "is of the opinion that an emergency requiring immediate action exists in respect to air commerce', it is authorized, either on its own initiative or on a complaint,promptly to issue an order to meet the emergency "in the interest safety in air commerce" (113). When an order is issued, FAA must initiate priority proceedings relating for renewal of the order (113).

Relationship to Other Laws

The relationship of FAA authority to OSHA regulation will be considered in a later section (114).

The FAA statute does not directly address the issue of federal preemption of state regulation of civil aviation and,therefore, the issue has been dealt with by the courts on a case-by-case basis, in accordance with general preemption principles. Thus, for example, a court has held invalid as directly conflicting with FAA regulations a municipal ordinance dealing with flight operations at a municipal airport (115). On the other hand, a state court has upheld against a challenge based on preemption of a state statute dealing with tort liability in the field of aviation (116).

Coast Guard - Maritime Safety

Since 1966, when the Department of Transportation was created, the Coast Guard (except when operating a service in the Navy) has been part of the Department of Transportation (117). The Secretary of Transportation has been given "general superintendence over the merchant marine of the United States of and of merchant marine personnel" and is required to enforce the relevant shipping laws "correctly and uniformly" "in the interests of marine safety and seamen's welfare" (118). The Secretary is authorized to issue regulations to carry the provisions of the law.

The shipping statute contains specific requirements on the manning of vessels (119) In particular, the provisions on "watches" contains limitations on hours of service (120) An officer may "take charge" of a deck watch on a vessel only if the officer has been off duty for at least 6 hours within the 12 hours immediately before the time of the ship leaving (121) On certain oceangoing or coast wise vessels, a "licensed individual" may not be required to work more than 9 of 24 hours when in port or more than 12 of 24 hours at sea, "except in an emergency when life or property are endangered" (122). Similarly, a "licensed individual" or seaman in a deck or

engine department may not be required or permitted to work more than 8 hours in one day on a towing vessel, except in an emergency or on certain merchant vessels (123) On certain towing vessels, an individual may not work for more than 12 hours in a consecutive 24-hours period except in an emergency (124). Additional statutory requirements relating to watches may indirectly affect hours of service, such as provisions on the number of watches into which personnel must be divided (125). Also, the statute prescribes certain rest period and prohibits "unnecessary" work on Sundays and certain holidays (126) However, in certain circumstances, such as when work necessary for the safety of the vessel or saving life inboard another vessel, these restrictions are not applicable(127).

The Coast Guard program of enforcement inspections is spelled out in detail, and its purpose, among other things, is to insure that the vessel "is in a condition to be operated with safety to life and property" and is in compliance with applicable merchant marine safety laws and regulations(128). Vessels are subject to initial inspections before being put in service and periodic inspections thereafter (129). They are given certificates of inspection, and failure to comply with the certificate may result in an order requiring the ship to cease operating (130). Owners, managers, persons in charge of vessels, and certain others are subject to civil penalties for violating the statutory requirements or regulations (131) and criminal penalties may be imposed in some circumstances (132). The Coast Guard has issued regulations on the procedures for the enforcement of civil and criminal penalties (133). The relation of Coast Guard jurisdiction to OSHA occupational safety and health responsibility is discussed below (134).

Fair Labor Standards Act

Overview of FLSA

The Fair Labor Standards Act, one of the centerpieces of New Deal employment legislation, was enacted in 1938 (135). The Fair Labor Standards Act (FLSA) as originally passed mandated a minimum wage rate for covered employees (136), required employers to pay an overtime premium for each hour worked over 40 hours in a single workweek (137) and imposed penalties on employers who employed "oppressive child labor" (138). In 1963, FLSA was amended to provide for equal pay for equal work regardless of sex (139). The constitutionality of FLSA was upheld by the Supreme Court in United States v. Darby in 1942 (140).

The Fair Labor Standards Act has been amended on numerous occasions since 1938. The minimum hourly wage when the law became effective was 25 cents an hour. This amount has been increased by statute a number of times, most recently in 1989,when the minimum wage was increased to $3.80 per hour after April 1, 1990, and $4.25 per hour after April 1, 1991 (141) The amendment also provided for a training wage at rates below the federal minimum wage and modified the provisions relating to the counting of "tips" as income. (142).

FLSA has also been amended to expand its coverage. The original Act imposed the statutory requirements only on those employers using the services of employees "engaged in commerce" or "engaged in the production of goods for commerce" (143)Despite expansive court definitions of the term "commerce", the coverage of FLSA was still determined on an employee-by-employee basis. In 1961, Congress amended the Act to establish a new "enterprise" coverage, bringing within the FLSA coverage employees regardless of their individual duties if they worked for an "enterprise" meeting the coverage requirements of the Act (144). The "enterprise" coverage has also been changed several times (145) and, in addition, FLSA coverage has been expanded to include additional categories of employees such as certain agricultural employees (145). One of the most significant amendments to FLSA was the expansion of coverage to include employees of state and local subdivisions in 1966 and 1969

(146). The application of the Act to state and local public employees presented complex constitutional questions, which reached the Supreme Court three times. Ultimately, the Supreme Court upheld the constitutionality of the coverage by FLSA of state and local employees. (147) In 1985, Congress amended FLSA further to tailor its overtime provisions to the special requirements of State and local governmental employment (147).

The statutory and regulatory provisions of FLSA relating to coverage are detailed and complex. Thus, for example, exemption from FLSA's requirements are provided employees in a "bona fide executive administration or professional capacity", (148) Other employees are exempt from the maximum hour requirements alone (154), and others from the child labor requirements (150). The Department of Labor has issued regulations and statements of general policy relating to the coverage of FLSA (151). Of particular relevance is the extent of the application of FLSA overtime provisions to employees of railroads, motor carriers and airlines regulated as to work schedule by the Department of Transportation (152). This issue is discussed below (153).

The Fair labor Standards Act is implemented by the Wage and Hour Division in the U.S. Department of Labor which was created by the 1939 statute (154) The Division is headed by an Administrator, appointed by the President, with the advice and consent of the Senate (155). The Act is enforced primarily through court suits brought by the U.S. Government and by private affected individuals (156). Criminal penalties, enforced by the U.S. Department of Justice, are also authorized in some cases (157). Violations of the child labor requirements are also enforced by a system of administratively determined civil penalties. (158)

Child Labor Provisions of FLSA

Under FLSA, an employer is prohibited from shipping or delivering for shipping goods produced in an establishment in which any "oppressive child labor" has been employed (159) The Act similarly prohibits an employer from employing "oppressive child labor" in an activity

covered by FLSA (160). The statute and implementing regulations define the term "oppressive child labor" in detail. With limited exceptions, minors under 16 years of age nay not be employed "in any occupation" (161). Minors between 14 and 16 of age may be employed in non-manufacturing and non-mining occupations where the Secretary of Labor determines that their employment is confined to periods which will not interfere with their schooling and to conditions which will not interfere with their health and well-being (162).

Under Wage and Hour regulations, minors between 14 and 16 may not work in certain occupations, such as those corrected with transportation, under any circumstances. (163) In other occupations, employment of minors between 14 and 16 is permitted if confined to certain times. These are:

1. Outside school hours;
2. When school is not in session not more than 40 hours in one week;
3. When school is in session, not more than 18 hours in one week;
4. When school is not in session, not more than 8 hours in one day;
5. When school is in session, not more than 3 hours in one day;
6. Between 7 A.M. and 7.p.m. in any one day, except during the summer when the evening hour will be 9 p.m. (164)

The regulations also provide for employment of minors between 14 and 16 in school work experience and career exploration programs meeting certain requirements. Among those requirements is that the employment shall not exceed 23 hours in one week or 3 hours in one day when school is in session any portion of which may be during school hours (165)

FLSA's child labor provisions are enforceable through administratively imposed civil penalties. A person willfully violating the child labor provisions is subject to a fine up to $10,000 and, if previously convicted of a "willful" violation, to a jail sentence of up to 6 months

(166). A person violating child labor provisions is also subject to a civil penalty not exceeding $1000 for each violation. The Secretary of Labor makes the final determination of the penalty assessed, with an opportunity for the party to obtain a formal hearing; the amount of the final penalty may be deducted from any sums owing the party by the United Sates or recovered in a court action brought by the Secretary of Labor 167).

Overtime Provisions of FLSA

Unlike the child labor provisions of FLSA, which directly limit the work schedules of covered minors, the minimum wage and overtime provisions have only an indirect impact on regulation. Thus, FLSA requires an employer to pay each employer meeting certain requirements not less than applicable specified amount "an hour"; this amount is the minimum wage (168) Under the overtime provisions, an employer may not employ a covered employee for a workweek longer than forty hours unless such employee received compensation for his employment in excess of the hours above specified at a rate not less than one and one half times the regular rate at which he or she is employed (169). This statute does not prohibit employers from requiring or permitting employees to work longer than a 40 hour week. However, for work above the 40 hour maximum, premium wages must be paid under the overtime provisions; and the minimum wage provisions regulates the basic hourly rate and the resulting "regular rate" upon which the overtime rate is based.

Under both minimum wage and overtime provisions, an integral step is the determination of "hours worked". This is critical because the employer must pay the minimum wage for "hours worked" and, of course, the calculation of overtime is based on a determination of the "hours worked" by the employee. Like all administrative agencies, the Wage and Hour Division has authority to interpret the law which it has been charged to enforce. The Division issued an interpretative rule on "hours worked" (170). It should be kept in mind that although this interpretation deals only with the amount employees are paid, it may well have important

indirect regulatory impact. Thus, as a general matter, by treating "marginal" employee activity as "working time", the interpretation could provide a financial incentive to an employer to reduce the employee work week. However, these incentive could operate in other ways, and the economic relationships between minimum wage and overtime requirements and the employees work scheduling is not within the scope of this paper.

The Wage and Hour Division interpretation first defines the legal impact of its "interpretation". It states that the interpretation are intended to "practical guidance" for employers and employees "as to how the office representing the public interest in its enforcement will seek to apply it" (171) The interpretation emphasizes that the "ultimate decisions" on interpretation of a statute are made by the courts (172) and there is a substantial body of administrative law on the extent court deference to agency legal interpretation (173). Under the Administrative Procedure Act, agency interpretation may be issued without prior public participation (174). However, as a practical matter, many Federal agencies conduct notice and comment rulemaking before issuing interpretative rules.

After setting forth general principles on the meaning of "hours worked" as enunciated by the courts (175) the interpretation seeks to apply these principles to "problems that arise frequently", such as waiting time, rest and meal periods, preparatory and concluding activities, lectures, meetings, and training programs and travel time (176). Of particular relevance is the application to "Sleeping Time and Other Activities". Under the interpretation, an employee who is required to be on duty for less then 24 hours is "working" even though he or she is permitted to sleep or engage in personal activity when not busy (177). However, for employees required to be on duty for 24 hours or more, the employer and employee may agree to exclude from "hours worked" "a bona fide regularly schedule sleeping period" of not more than 8 hours "so long as" adequate sleeping facilities are furnished by the employer" and the employee "can usually enjoy an uninterrupted night's of sleep (178) However, no more than 8 hours sleep time

will be excluded and there must "expressed or implied" agreement for such exclusion (179) The interpretation stipulates that if the sleep period is interrupted to such an extent that the employee cannot get a "reasonable night's sleep", the entire period must be counted as hours worked. As an enforcement guideline, the Wage and Hour Division says that if 5-hours of sleep is not provided, the entire time is work time (180). In a recent case involving overnight relief workers at country residential facilities for the mentally retarded, the court held that the employees, though on duty for more than 24 hours, were entitled to compensation for sleep-time because of the nature of the accommodations and frequent need to attend to clients at the facilities (181).

FLSA's overtime and minimum wage provisions are enforceable primarily through suits brought in the courts. These suits may be brought by affected employees in Federal or State courts or by the Wage and Hour Division in a Federal court. In these suits, the employer may be liable for unpaid minimum wages or unpaid overtime compensation and, in suits brought by employees, for an additional equal amount of liquidated damages. In addition, the Wage and Hour Division may bring an action in a Federal court to restrain unlawful conduct. A person "willfully" violating FLSA is subject to a $10,000 fine and, for a second willful conviction a six-month jail sentence (182).

FLSA Relationship to Other Laws

A recurring issue in Government regulation is the potential overlap among various agency requirements. This type of overlap occurs frequently and may be the subject of statutory provisions and court decisions as well as the source of bureaucratic controversy.

In the case of FLSA, the relevant jurisdictional issue arises from interplay of the Wage and Hour Division's broad authority to regulate hours and the authority of the Department Of Transportation to regulate the hours of employees in specific transportation industries. The

FLSA Act seeks to avoid this potential regulatory redundancy by excepting certain groups of employees from the overtime, but not the minimum wage, provisions of the Act. These categories employees are as follows:

1.Certain employees of motor carriers with respect to whom the Secretary of Transportation's authority to establish "qualifications and maximum hours of service" under the Motor Carrier Act (183)

2.Certain employees of employers engaged in the operation of common carriers by rail and subject to the authority of the Secretary of Transportation (184).

3.Certain employees of air carriers (185).

The Wage and Hour Division has issued a detailed interpretation on the application of the exemption for motor carrier employees from the overtime provisions. As explained in the interpretation, the exemption applies to classes of employees who work for carriers subject to 204 of the Motor Carrier Act and who engage in activities "of a character directly affecting the safety of operation of motor vehicles in the transportation on the public highways of passengers or property" in interstate or foreign commerce (186).

The other major intersection of regulatory authority derives from this country's Federal system. Frequently, both the federal government and the states regulate a particular subject matter and the issue arises as to the effect of this dual exercise authority. Under the U.S. Constitution, Federal legislation is the "supreme law of the land" (187). Accordingly, it is well established that state law must yield to Federal Law where the two are in conflict, or where Congress in a stature has expressly, or implied, indicated its intent to preempt the state regulation. Where Congress has not indicated its intent on the preemption issue, the courts have fashioned legal rules on when state law will be implied preempted by federal law (188)

In FLSA, Congress expressly indicated its intention regarding the continued application of state law on wages and hours. Under FLSA, an employer is not excused from complying with any state law or municipal ordinance establishing a "higher"minimum wage then FLSA on a "lower" maximum work week, or a "higher standard" relating to the employment of child labor (189). Thus, stricter state and local laws are not preempted; however, where state and local laws are less strict, FLSA alone is effective. More stringent wage and hour legislation.ion is in effect in some states (190).

Nuclear Regulatory Commission (NRC).

The Nuclear Regulatory Commission (NRC) was created in 1974 under the Energy Reorganization and Development Act (191). A 5-member independent agency whose members are appointed by the President with the advice and consent of the Senate (192), NRC replaced in part the original Atomic Energy Commission which existed since 1954 (193) NRC was transferred the relevant authority to establish standards and instructions governing the possession and use of special nuclear material, source materials, and by-product materials as the agency may deem as "necessary" and "desirable" in order to promote the common defense and security and "to protect health or to minimize danger to life or property" (194). The regulatory authority of NRC applies in general to licensees authorized to operate nuclear power reactors or to companies that construct nuclear power facilities. NRC also regulates those who use nuclear materials (195).

NRC has issued regulations, applicable to personnel employed in the licensed nuclear power industry, entitled "Fitness for Duty Programs" (196), which relate to drug and alcohol testing of plant personnel and are enforced by the NRC. Under the statute, NRC has authority to impose civil penalties (197), to revoke licenses (198) and to issue compliance orders (199). NRC has also issued a non-enforceable statement of policy regarding nuclear power plant staff working hours (200).

The policy addresses itself to establishing controls to prevent "situations where fatigue could reduce the ability of operating personnel to keep the reactor in a safe condition." These controls, the policy states, should focus on "shift staffing and the use of overtime." The purpose of the controls, which would be applicable to staff who perform safety-related functions, would be to assure, "to the extent practicable" that they would not be assigned shift duties "while in a fatigued condition" so as to reduce their mental alertness or their decision - making ability. The objective is that plants would employ enough personnel so that operating staff would work a normal 8-hour day, 40-hour week. However, where "unforeseen problems" or special circumstances arise necessitating major overtime, the policy offers certain "guidelines" to be followed. An individual, even in emergency situations, should not be permitted to work more than 16 hours "straight", more than 16 hours in a 24 hour period, 24 hours in a 48-hour period, or 72 hours in any 7-day period. In addition a break of at least 8 hours should be allowed between work periods and licensed operators at controls should be "periodically" relieved and give non-control board responsibilities during their tour of duty (201).

Unlike NRC's fitness of duty regulations which have the force and effect of law and are legally enforceable by NRC, the policy statement has no legal effect except as an indication of the agency's view of safe procedure.

The NRC-OSHA jurisdictional agreement is discussed below (202).

State Regulation

This report to this point has focused on current federal regulation of work scheduling. There is also a substantial body of state regulation in the area of employee hours and conditions of work, some of which relates directly or indirectly to work scheduling. Because of

the bulk of the material, only illustrative examples will be presented. In considering state legislation, the possible preemptive effect of federal regulation of the same subject matter should be kept in mind. The topic of preemption has been discussed above (203).

A number of states have legislation paralleling the federal FLSA. An example is the Michigan Minimum Wage Law, enacted in 1964 (204) and last amended in 1980 (205). The law establishes a minimum wage which, when enacted, was higher than the federal minimum wage (206) and requires the payment of time-and-a-half for overtime above 40 hours in a workweek (207). The law contains special provisions applicable to state and local government fire protection and law enforcement personnel (208) and to various state and local health care employees (209) The Michigan Act, like the Federal Act, also provides exemptions for certain categories of employees, such as those employed in a bona fide executive, administrative or professional capacity (210) The law also includes a "reverse" preemption clause, providing that the law does not apply to employees covered by the federal FLSA, except where application of the federal law would result in a "lower minimum wage" or in certain other situation (211).

The State of Michigan also has in effect a work scheduling law for motor truck and tractor operators (212) Under the law, it is unlawful for a person to drive, or for a person to require or permit another person to drive a motor truck or tractor more than 10 hours in 15 hours, and then only following 8 hours off duty. The law defines duty time as beginning with the person's reporting for duty and ending with a person's release. It further provides that off-duty time may be cumulated in a sleeping berth in two periods of at least two hours each (213).

Michigan also has enacted a child labor statute, which imposes work schedule limitations on certain minors. The law does not apply to minors above IS who have graduated from high school, minors over 16 who have passed a certain development test, and emancipated minors. In addition to prohibiting certain work to minors entirely, the law makes it unlawful for a minor under 15 to be employed in a covered occupation for more than 6 days in one week, or

more than a weekly average of 8 hours per day, or 48 in one week, or more than 10 hours in one day. In addition, the minor may not be employed between 10:30 p.m. and 6 a.m., or until 11:30 p.m., when not in school. A minor in school may not be employed a combined school and work week of 48 hours when school is in session. Minors under 16 have the same restrictions except that they may not be employed between 9:00 p.m. and 7:00 a.m. (214).

Other state legislation generally focuses on work schedule limitations for specific categories of employees, and for minors, and requirements for premium pay for overtime (215) A notable exception which has attracted wide attention is the recently enacted New York State statute regulating the work schedules of attending physicians and certain postgraduate trainees in hospitals (216) The stated purpose of the legislation is to assure that the "working conditions and the working hours" of the covered physicians and trainees "promote the provision of quality medical care." In hospitals with over 15,000 per year unscheduled visits in emergency service, assignment of attending physicians and postgraduate trainees may not exceed 12 consecutive hours per on duty assignment in the emergency service (217). The New York Commissioner of Health may approve alternative schedules of up to 15 hours service for attending physicians if certain conditions are met. These conditions include the need for quality medical service, if the volume during the extended period is "substantially less" than other times, and if "adequate rest time is provided between assignments and during each week to prevent fatigue" (218) The statute further limits the schedule of postgraduate trainees with inpatient care responsibilities to an average of 80 hours per week over a four week period, with no work scheduled for more than 24 hours consecutively (219). Others schedules are permitted in certain circumstances (220), and, in addition, postgraduate trainees are prohibited from working additional hours as physicians (outside the hospital) providing professional patient care services (221).

Other states have considered legislation on physician and resident work schedule, (222) but none has been enacted. In some states, such as Massachusetts, the medical community has developed non-regulatory guidelines on the hours of physicians and trainees (223).

Areas of Potential Regulatory Action

The first part of this report dealt with areas of current regulatory action. This includes both statutes that directly regulate work schedules (e.g. Hours of Service Act covering railroad employees) and regulations issued by administrative agencies under more general statutory authority (e.g. Motor Carrier Safety Act). The impact of labor relations statutes,such as the federal Labor-Management Relations Act, which obligates employers and. unions to bargain in good faith and which may result in collective bargaining agreements covering work schedules, will be considered separately. Here we consider areas of potential regulatory action.

An important distinction should be made at the outset.Regulatory action could consist of the enactment of new (or amended) legislation covering work schedules, or, the promulgation of new regulations under existing statutory authority.

With respect to the enactment of new federal legislation,there is no serious question regarding the power and authority of the Congress to take legislative action to regulate work schedules. A long line of Supreme Court cases has established the plenary power of Congress to regulate economic matters,including labor regulation, under the commerce clause of the U.S. Constitution. Of course, Congressional action would be subject specific constitutional limitations, as, for example, the due process clause. So, procedures under any new statutes would have to meet due process requirements. A recent Supreme Court decision considered a constitutional challenge to a federal "whistleblower" statute which provide for interim reinstatement of employees claiming that they were discriminatory discharged. The Supreme Court upheld the statute (224) While the federal legislation could apply work schedule requirements selectively,that is, to specific categories of employees and not too others,there would have to be a satisfactory explanation for its distinguishing between various groups for

regulatory purposes. This explanation could consist of data showing particular danger from fatigue in specific industries; such explanation would likely be upheld, particularly since legislation singling out particular industrial groupings for regulatory purposes has substantial precedent.

At the same time, it should be emphasized that some distinctions in regulatory coverage may be problematic under the equal protection clause of the U.S. and state constitutions, and under civil rights statutes (225). In particular, gender and race distinctions would be subject to invalidation since the courts review these types of legislative action with an elevated level of scrutiny (226). Thus, for example, a statute that limited night work for women and not men would almost surely be invalidated. The argument that women are in need of special protection no longer acceptable and would not stand up in court. (The issue of the legality of special "protection" for pregnant women from lead hazards is now before the Supreme Court.) (227)

Where the federal statute already includes specific hours of service requirements, as, for example, railroad employees, Congress would have to act to modify these requirements. The relevant administrative agency has either explicit or implied authority to interpret these statutory provisions, and while these interpretations are entitled to deference, there are firm limits to agency interpretative authority. Thus, for example, the agency may not interpret a law contrary to the language of the statute or its intent.

With regard to state legislation, the issue is somewhat more complex. While state legislatures generally have authority to regulate economic matters, they are subject both to federal constitutional limitations which are applicable to the states (e.g., due process and equal protection already discussed), and state constitutional limitations. In addition, any state regulatory action, whether in the form of a statute, regulation,order or decision, may be preempted by federal regulatory action in the same area. The issue of federal preemption is a

complex area of law, involving constitutional principles, federal statutory language and intent, and a substantial body of precedent (228). Any consideration of potential state legislative action, or other regulatory action would have to take into account this body of law.

This paper will now move to a consideration of potential regulatory action by administrative agencies in situations where statutory authority exists, or may exist. First, federal and state occupational safety and health laws will be discussed. This is followed by a discussion of other safety acts, which are not limited to but include occupational safety. Then, the overtime provisions of Fair Labor Standard Act will be considered as a potential source of authority. Finally, other areas of possible authority will be taken up.

OSHA and Related Occupational Safety and Health Laws

The most likely source of authority to regulate work schedules would be safety and health statutes. Some of these deal specifically with occupational safety and health, notably the Federal OSH Act (229) Others are more general, encompassing many facets of safety (230). Because federal OSHA is the most sweeping of these enactments, it will be considered first.

Overview

The federal OSHA statute (OSHA), which was December 1970, became effective in April 1971. (231) Its purpose is to provide safe and healthful workplaces for America's workers (232). The statute created a new agency, also called OSHA (Occupational Safety and Health Administration) in the U.S. Department of Labor with major responsibility to implement its provisions (233). The Act covers all private employees (234) Federal and some state and local employees are not covered by the basic OSHA program but under separate provisions (235). It is estimated the about 91 million private employees are currently under OSHA jurisdiction (236).

The OSHA Act was not relevantly amended between 1970 and 1990. Covered employers have two basic obligations: (1) to comply with occupational and safety and health standards issued by OSHA and, (2) to comply into the general duty clause (237) OSHA enforces those obligations through a system of workplace inspections and the issuance of civil penalties of up to $70,000 and citations with abatement requirements. OSHA Act also include authority for limited criminal penalties (238)

OSHA Standards

OSHA has issued a large body of standards, generally separated into "safety" standards and "health" standards (239) These are three kinds of standards authorized by the OSHA Act: (240) (1) start-up standards. These were authorized only for the first two years after enactment and are no longer a factor in OSHA activity (2) standards issued after rulemaking; most OSHA standards are issued under this authority; and (3) emergency temporary standards. These may be issued if OSHA finds a "grave danger" to employees which "requires" emergency action. Emergency standards may be effective only for 6 months, and like other standards, are subject to court of appeals review.virtually all OSHA emergency standards which have been challenged have been set aside by a court of appeals and OSHA has not issued an emergency standard since 1983 (241). The courts have insisted on a showing of "grave danger" before approving an emergency standard (242), and, as a practical matter, it is unlikely that OSHA's emergency authority would be successfully utilized to deal with work scheduling hazards. We will therefore focus the discussion on standards issued after rulemaking.

The OSHA statute contains specific rulemaking procedures for the issuance of standards. These are public notice, including a proposed standard, a public hearing if requested, which is usual, and a final standard, which includes a statement of reasons for its

issuance (243). Presidential Executive Order No. 12,291 mandates that agencies such as OSHA prepare a proposed and final regulatory impact analysis (RIA) for major rules, which is subject to review by the Office of Management and Budget (244)

The RIA must include a consideration of the costs and benefits of the standard, and of alternative actions. While the Executive Order also mandates the preparation of a cost-benefit analysis "to the extent permitted by law", the Supreme Court has prohibited cost-benefit analysis in the development of OSHA health standards (245). There has been litigation as to whether OSHA may or must prepare a cost-benefit analysis for "safety" standards, with one court of appeals concluding that it must do so (246) OSHA is also required to prepare impact analyses under the National Environmental Protection Act (247) the Regulatory Flexibility Act (248) and several other executive orders. It is also subject to review by OMB under the Paperwork Reduction Act (249).

In addition to statutory procedural requirements and to the requirements under Presidential executive orders, OSHA has undertaken on its own certain procedural and administrative steps to improve its standard process. Thus, OSHA often issues an advanced notice of proposal rulemaking, to obtain pre-proposal comments. OSHA's public hearings have become far more complex, including testimony and cross-examination of witnesses presented by OSHA and the parties. In addition, OSHA's proposed and final standards regularly include lengthy preambles, setting forth the justification for the agency action. These are critical at the judicial review stage (250).

OSHA standards are subject to review in an appropriate court of appeals, with further review available in a United States Supreme Court (251) The standard of review is the "substantial evidence" test, and while the meaning of that test has been subject to various interpretations (252) courts have not hesitated to set aside OSHA standards completely or in part, on either procedural or substantive grounds (253) In a major OSHA standards decision,

the Supreme Court, in setting aside OSHA's benzene standard, held that OSHA's standards must address a "significant risk" in the workplace and that the new standard must eliminate or reduce that risk. The Court insisted that it is OSHA's burden to demonstrate the "significant risk" by substantial evidence (254). Typically this evidence would include experimental studies showing that existing working conditions result in worker hazards that the agency's deems to be in its expert judgment "significant". The studies are conducted by National Institute of Occupational Safety and Health (NIOSH) (255) or the public, and, in either case, are submitted for the record in OSHA rule makings for agency consideration.

There are their several basic substantive requirements for OSHA standards: (I) The "significant risk" showing, as discussed, (2) the standard must be "feasible". Feasibility Includes, both economic and technological feasibility (3) The standard's purpose must be to protect employee safety and health, OSHA has no authority to issue standards directed solely to employee economic benefit or to public safety. (256) The OSHA Act also provides that certain specific types of provisions must be included in OSHA standards, particularly health standards (257).

OSHA has issued many safety and health standards but none,so far as appears, deals with work scheduling. However, if OSHA determines that hours of work pose a safety or health hazard to employees, it would be authorized by the Act to regulate this area by the issuance a standard regulating this area, in accordance with the statutory procedures. This authority seems clear. However, in considering whether OSHA should take regulatory action on work schedules through the promulgation of standards (enforcement under the general duty prevents different issues) a number of factors must be kept in mind:

(1) OSHA's safety and health jurisdiction is comprehensive and many different and serious hazards are competing for OSHA regulatory attention. OSHA would have to determine that regulation of work schedules was worthy of special priority for rulemaking

before it would undertake regulatory action. With such subjects as AIDS, ergonomic hazards, the hazards of blood borne diseases to health care workers and various carcinogens on its agenda, there is serious question whether OSHA is likely to reach this issue in the near future. Interested parties may partition OSHA to begin rulemaking on an issue, may utilize political or other means to persuade the agency to act, and may also sue in court to force agency action. In some cases, courts have ordered OSHA to undertake rulemaking, but this has been in the context of carcinogens or in other special circumstances (258). It is doubtful that a court would act to press OSHA for work schedule regulation.

(2) OSHA rulemaking is typically slow, with years elapsing before a final standard is issued and upheld in court (259) While priority items are often speeded up, such special treatment would not necessarily be accorded to work schedule regulation. On occasion, courts have forced OSHA to complete rulemaking, but this again is unusual, and takes place only in special situations (260).

(3) OSHA standards are subject to OMB and court review, as discussed. This delays the process and injects uncertainties into the final result. OMB has sometimes second-guessed OSHA on the substance of standards (261) and court review has tended to be stringent (262). Early in its history, several OSHA standards were vacated because they were not supported in the record. Later standards were remanded because they were found by the court to be inadequate to protect employee health (263). In any event, court confirmation cannot be taken for granted, and careful marshalling of data and preparation of preambles of final standards is essential.

OSHA Enforcement

OSHA standards, and, as will be discussed, the general duty, clause are enforced on the basis of workplace inspections. An employer may object to the inspection in which event OSHA must obtain a warrant, based on probable cause, from a U.S. Magistrate (264). The OSHA inspector (safety or health) conducts the inspection of the workplace, and, if violations

are disclosed, he or she issues (through the Area office) citations and proposed penalties. (265) The citation contains an abatement date, and, under recent legislation, proposed penalties may be as high as $70,000 for violations (266). An employer may contest the citations and penalties before the independent Occupational Safety and Health Renew Commission (OSHRC) whose administrative law judges hold evidentiary hearings at which OSHA lawyers have the burden of proving the violations and the appropriateness of the penalties. Decisions of OSHRC may be appealed to a U.S. court of appeals, and ultimately to the U.S. Supreme Court (267).

If an inspector finds an "imminent danger" at a workplace, that is, a hazard that could cause death or serious harm immediately or before normal enforcement procedures are completed, he or she notifies employees and the employer at the workplace of the danger and, through OSHA lawyers, seeks an order in a U.S. district court requiring the immediate abatement of the hazard or the removal of employees (268). OSHA has resorted to the imminent danger procedures relatively infrequently, possibly because of employer voluntary compliance in potential imminent danger situations.

If an employer willfully violates a standard, and this violation results in the death of employee, criminal penalties may be imposed (269) Few federal criminal prosecutions have been brought, and OSHA's implementation of federal criminal penalties has been the subject of criticism; recently, state criminal prosecutions of occupational safety and health issues have become more prevalent (270).

The OSHA enforcement system is predicated on two major goals: (1) The abatement of hazards which have been found and cited in the course of workplace inspections; and (2) providing an incentive to all employers, particularly those whose workplace contain serious hazards, to abate hazards even before a workplace inspection. Also, to encourage workers to cooperate in the Act's enforcement scheme, the Act provides penalties for employer reprisal against employees exercising their OSHA rights (271).

While there is substantial agreement that OSHA enforcement,taken as a whole, has brought about significant improvements in workplace safety and health, there have been many criticism of important aspects of OSHA enforcement activity. Among the most important of these are the following:

(1) Because of the large number of covered workers, more than 91 million, the number of OSHA inspectors in completely inadequate. As a result, it is unlikely that an employer will be inspected, and the incentives to compliance are necessarily reduced.

(2) The effectiveness of OSHA enforcement depends in important measure on OSHA's ability to establish valid inspection priorities. However, there is doubt that OSHA has been able to determine which workplaces should be inspected first. This is due to the absence of establishment - specific injury data and the general inadequacy of illness data.

(3) The penalty system must provide a credible incentive to compliance. It is doubtful that the system does so. In the first place, at least until recently, penalties were too low, particularly compared to engineering abatement costs. Further, all employer abatement and penalty obligations are suspended in the event of contest, and resolution of OSHRC proceedings often takes years; in the interim, no compliance is required and OSHA often settles cases, sharply reducing penalties.

(4) Federal criminal sanctions, as discussed, have not been a factor in compliance and the enforcement of the anti-reprisal provisions, which involves long-drawn out court suits, has been of limited success.

Despite these criticisms, it should be emphasized that where OSHA has issued a standard covering a particular hazard and given high priority to the inspection program under that standard, and assigned adequate personnel to the project, OSHA has been a significant factor in bringing about public awareness of the seriousness of the hazard and in eliminating it from the workplace. Example of such successful activity were the vinyl chloride program earlier in the history of OSHA, and, more recently, the asbestos program.

The General Duty Clause

Employer obligations under OSHA are based either on standards issued after rulemaking or on the "general duty" clause. The "general duty" clause, section 5 (a) (I), requires than an employer provide employees with a workplace "free from recognized hazards likely to cause death or serious physical harm" (273). Like standards, the general duty clause is enforced through workplace inspections, citations, and penalties. However, in important respects general duty enforcement differs. When OSHA enforces a standard, the employer obligations are defined by the standard, which has already involved a public participation phase and, usually, upheld by a court. Thus, in the enforcement proceeding, OSHA need "only" establish the facts, and show that the standard was violation in order to uphold the citation and penalty.

In general duty proceedings, however, the OSHA burden is different and greater. There is no "specific" obligation which is to be enforced; there is only the more generalized requirements of section 5(a)(I). To establish a general duty violation, OSHA must show the following:

(I) There is a "recognized" hazard. On this, there is considerable case law and while generally OSHA need not prove that this particular employer recognized the hazard, there is still a necessity to show that the hazard has been "recognized"by industry or by safety experts (274). This means, critically, that in each general duty prosecution the extent of the hazard involved becomes an issue. Indeed in one case involving a health hazard, OSHRC relied on the Supreme Court decision in the Benzene case and held that "recognition" involves a showing a "significant risk" (275).

(2) The hazard is likely to came death or serious physical harm (276).

(3) Feasible methods of abatement of the hazard exist(277)

In addition, the general duty clause is usually not applicable where a standard covering the hazard involved already exists, even where it can be shown that the inadequacy that the existing standard has been generally recognized (278).

The implications for potential enforcement of work schedule requirements under the general duty must be recognized. Employer obligations under general duty are established on a case-by-case basis. This means that employers would have to study OSHA announcements and OSHRC and court decisions to determine what work schedule requirements are considered by OSHA to be "recognized". And, OSHA would have to establish, and reestablish, the recognition of these hazards in each individual case to be enforced. Thus, use of the general duty clause to regulate work schedule hazards would likely lead to less effective compliance and would be more burdensome for the agency. In short, if OSHA decides to regulate employee work schedules, the requirements should be defined by a standard issued after rulemaking. Despite the possible length of the standard proceedings, it affords the only reliable basis for regulation. Until the standard is issued, the general duty clause would be available for particular egregious instances of hazards, in the event enforcement action is deemed necessary.

State Plans

The OSH Act contains specific provisions dealing with the issue of state plans (279). State occupational safety and health enforcement is expressly preempted by OSHA standards on the same "issue", unless a state plan is in effect. States may submit their own programs for state OSHA enforcement and, if found "at least as effective" by federal OSHA, the state program is approved. Upon approval, the state is entitled to escape preemption and enforce its own program with So percent financial assistance from federal OSHA. Ultimately a state may be granted "final" approval, at which time federal enforcement legally ends, and the state exclusively enforces safety and health obligations. However, the states must maintain the

OSHA program at an "at least as effective" level, and, for example would be required to issue at least as an effective standard if OSHA were to promulgate a new standard for, for example, work schedules. OSHA continues to monitor the effectiveness of state programs even after final approval, and may, after appropriate proceedings, withdraw approval of a state plan (280).

There are presently 26 approved plans submitted by states and other jurisdictions, and 14 of these have been granted final approval. In these, there is no federal enforcement, with states having jurisdiction to conduct most OSHA enforcement under their plans.

In sum, if OSHA undertakes regulation of work schedules, the federal standard and enforcement would cover less than half the states; the remainder would be covered by state standards and enforcement. This state activity must be at least as effective as OSHA's, and, with limited exceptions, may be more effective (281). In this connection, decisions of three highest state courts have upheld the right of states, even without approved state plans, to enforce their criminal statutes (such as manslaughter and assault) to situations pertaining to occupational safety and health (282). States with approved plans, of course may enforce criminal sanctions under their plans; this has always been clear.

State and local employees are separately treated under the OSHA Act, and will be discussed under "Government Employees"(283)

Pre-OSHA Statutes

Before the enactment of OSHA, Congress had passed several statutes, with limited coverage, to protect worker safety and health. The main relevant laws were the Walsh-Healey Public Contracts Act (1936) (284), the Service Contract Act, (1965) (285), the Construction Safety Act (1969) (286), and the Longshoremen and Harbor Workers Act, Safety Rules and Regulations (1965) (287). Each authorized the issuance of occupational safety and health standards, and their enforcement, and the U.S. Department of Labor before OSHA was

enacted issued some standards under these statutes. When OSHA became law in 1970, the statute expressly preserved these pre-OSHA laws in effect (288), and authorized OSHA's adoption of all pre-OSHA standards as OSHA standards without rulemaking (289). These were called "established federal standards." In addition all newly adopted OSHA standards automatically became standards if relevant under the pre-OSHA statutes.

The net result of this rather complex legal structure is that, in addition to OSHA with its comprehensive coverage,standards, and enforcement scheme, the far more limited pre-OSHA statutes have continued in effect and at least theoretically are available as an enforcement tool. However, as a matter of its discretion, OSHA has chosen to enforce only through OSHA and not to use any of the pre-OSHA laws, even through some additional remedies may be available under the earlier statutes, such as barring violators from Government contracts, under Walsh-Healey (290) It would seem, therefore, that in considering potential legal authority, these pre-OSHA statutes would not be a serious factor.

Mine Occupational Safety and Health

In 1977, Congress enacted the Federal Mine Safety and Health Act (291) superseding the earlier Federal Coal Mine Safety Act (292) and replacing the Metal and Nonmetal Safety and Health Act. The new statute assigned enforcement of the program to the MineSafety and Health Administration (MSHA) in the U.S. Department ofLabor. The Act covers all coal and other mines and authorizes the issuance of mine safety and health standards (293) The procedures for issuance of standards is similar to the OSHAprocedure including authority to issue emergency temporary standards (294). MSHA is required to enforce these standards,but in a number of respects, the MSHA enforcement provisions are more stringent than those in the OSHA Act. Thus, for example, MSHA in some circumstances has administrative close-down-authority (295) and the mine safety statute provides for a mandatory minimum number of inspections per year for various kinds of mines (296). The Supreme Court has held

that, unlike OSHA, MSHA is not obligated to obtain a search warrant before conducting a mine inspection (297). The greater stringency ofMSHA statutory procedures is due largely to Congressional recognition of the seriousness and immediacy of hazards at mines.

The Mine Act does not provide for state plans, but state standards which provide for "more stringent" protection than federal standards or provide protection where no applicable federal standard exists may be enforced. (298) Provisions are also made for federal grants to states for the purpose of "developing and enforcing" "effective" mine safety and health standards (299)

MSHA is given explicit authority to issue "mandatory health and safety standards for the protection of life and the prevention of injury in coal and other mines" (300) This authority parallels OSHA authority, and upon a satisfactory showing that employee work schedules creates safety and health hazards for employees, MSHA, following statutory procedures,would have authority to issue mandatory standard protecting against work schedule hazards. The standards are subject to the requirements of Executive Order No. 12,291, and like OSHA standard, may be challenged in a U.S. court of appeals (301). However, the mine statute, unlike OSHA, does not provide for the "substantial evidence" standard of review (302).

OSHA is preempted by the OSHA Act from applying to any "working condition" concerned by another statutory program (303) This is the important section 4 (b) (I) which will be discussed more fully below (304). Since mine employees are comprehensively covered by MSHA standards and enforcement OSHA has no application to any mine employee or mine working condition covered by MSHA. This preemption has been recognized in an interagency agreement between OSHA and MSHA (305).

Other Safety and Health Statutes

To this point, we have addressed statutes dealing specifically to the protection of employees. (Any protection of public safety would derivative.) These include OSHA, MSHA, and pre-OSHA laws. There is another type of statute whose purpose includes both public and employee safety. An example is the Federal Railroad Safety Act, designed to protect railroad employees and also passengers and members of the public who may be affected by railroad operations. We now consider these so called "mixed" purpose statutes.

Federal Railroad Safety Act of 1970

The Railway Safety Act of 1970 (306) was enacted "to promote safety in all areas of railroad operations," "to reduce railroad - related accidents," and "to reduce deaths and injuries to persons caused by accidents involving any carrier of hazardous materials." (307) Under the law, the Secretary of Transportation, acting through the Federal Railroad Administration (FRA) is required to prescribe rules, regulations, orders and standards "for all areas of railroad safety", supplementing those laws and regulations already in effect (308) The statute expressly provides that FRA is not authorized to issue rules "relative to qualifications of employees except such qualifications as are specifically related to safety" (309). The Act further authorizes carriers and unions to enter into bargaining agreements relating to qualifications of employees "not inconsistent with" FRA rules issued under the statute (310). The statute contains a timetable for the issuance by FRA of safety rules and provides for court review of the rules under the Administrative Procedure Act (311) The Department of Transportation has issued rules of procedure for its rulemaking activity (312).

The 1970 Act, by its terms, authorizes railroad safety rules to supplement those contained in earlier statutes and in previously issued administrative rules. Thus, relevantly, while the Hours of Service Act prescribes specific limitations on the hours of service of specific categories of railroad employees, the 1970 Railroad Safety Act would authorize FRA to issue

safety rules for additional categories of railroad employees or prescribe additional requirements. These new rules could impose limitations on employee work schedules, so long as the rules were "specifically related to safety".

FRA has issued a number of rules under the 1970 Act, dealing for the most part with safety of railroad equipment and record keeping and reporting requirements (313). In addition, FRA has promulgated regulations on the control of alcohol and drug use by railroad employees. The purpose of these regulations is to "prevent accidents and casualties from impairment of employees by alcohol and drugs." (314) It seems clear that FRA would have authority to regulate work schedules,if there was a factual basis for concluding that this was necessary to promote public and employee safety by railroad accidents that could result from such conditions as fatigue and inattention.

FRA is authorized to investigate and take other enforcement actions necessary to carry out the provisions of the 1970 Act (315). In particular, FRA may provide for civil penalties of not less than $250 and no more than $10,000 for violations of its rules, and in the case of a "grossly negligent" violations, or a "pattern of repeated violations," which has a created an "imminent hazard of", or has caused, death or "injury", civil penalties of up to $20,000 are authorized (316). If FRA determines that an "emergency" situation involving a hazard of death or injury to persons exists, it may issue an immediately effective order as may be necessary to bring about the abatement of the situation, so long as subsequent opportunity to review the order is be provided (317) Court action by employees exposed to "imminent physical injury in the course of employment" may be brought against FRA to compel issuance of emergency orders (318) The FRA has issued regulations containing procedures for "railroad safety enforcement. These regulations describe the relationship of FRA enforcement of the 1970 Act to the enforcement of the pre-1970 statutes including the Hours of Service Act (319).

The 1970 Act declares that railroad safety regulations should be "nationally uniform to the extent practicable." (320) State rules continue in effect until FRA adopts a rule on the "same subject matter", except that a state may continue In force "an additional or more stringent" law or rules "when necessary to eliminate or reduce an essentially local safety hazard" if not "incompatible" into federal requirements (321). The 1970 Act also provides procedures for state "participation" in the enforcement of federal requirements if the state has regulatory authority over certain railroad operations and the state makes an annual certification to FRA, which includes a statement that the state is conducting "investigation and surveillance activities" prescribed by FRA "as necessary for the enforcement of federal requirements, as interpreted by FRA (322).

The 1970 Act also provides for state suits for assessment and collection of civil penalties or for injunctive relief in certain circumstances where FRA fails to take enforcement action (323). FRA has issued regulations governing the respective application federal and state rules in railroad safety enforcement (324).

Other Safety and Health Statutes

We have discussed earlier statutes authorizing the FRA, the Coast Guard, the FNT and the NRC to issue regulation to protect safety and the agency rules on work schedules that have been issued (325). These laws provide continuing agency authority over work schedules and are summarized below.

(a) Motor Carrier Safety Act of 1984. Under this Act, the Secretary of Transportation is authorized to issue regulations establishing minimum federal safety standards for commercial motor vehicles. At a minimum these standards must ensure relevantly, that the "responsibilities imposed upon operators" of vehicles "does not impair their ability to operate" the vehicles

"safely"; that the "physical condition of operators" is "adequate to enable them to operate such vehicles safely", and that the "operation" of vehicles "does not have to deleterious effects on the physical condition of such operations" (326).

This authority is broad enough to include work schedule regulation. Indeed, FHWA has already issued hours of service regulations (327) and, analogously, has issued regulation on alcohol and drug use of operators, which have been upheld. (328) Accordingly, following the mandated rulemaking procedures FHWA could amend existing hours of service regulations or) issue additional regulations on work scheduling. Any amendments or modifications would be subject to court review under the
Administrative Procedure Act, as already discussed.

(b) Federal Aviation Act. Under this statute, the FAA has specific authority to issue "reasonable rules and regulations" "governing, in the interests of safety, the maximum hours or periods of service of airmen, and other employees of air carriers." The Act also authorizes other "reasonable" rules and regulations or minimum standards "governing other practices methods and procedure" which FAA finds "necessary to provide adequately" for "safety in air commerce (329) As already discussed, FAA has issued hours of service regulations for various categories of employees in air commerce (330) and, it would have the authority following required rulemaking procedures, to modify these or add to these regulations, with its actions being subject to court review.

Coast Guard The Coast Guard has "general superintendence over the merchant marine of the United States and of merchant marine personnel" and it has specific statutory authority to take action "governing vessels and shipping in the interests of marine safety and seaman's welfare." (331) Tile relevant statute also contains specific requirements for the "manning of vessels" including limitations on hours of service for certain types of employees, particularly in relation to watches on ships (332). The Coast Guard has general authority to issue

interpretations on the statutory manning requirements. (333) The Coast Guard has general authority to issue interpretations on the statutory provisions on hours limitations and authority to issue regulations imposing hours limitations beyond those stipulated by the statute, so based on its statutory authority to regulate "marine safety and seaman's welfare." The Chief Counsel Office of the Coast Guard believes that such authority exists (334).

Energy Reorganization and Development Act The Nuclear Regulatory Commission has authority to issue regulations governing nuclear materials as it may "deem necessary [and) desirable to protect health or to minimize danger to life or property" (335). This would provide sufficient authority for the agency to regulate work schedules of covered employees. NRC has already issued regulations applicable to employees of licensees relating to "fitness for duty", prescribing a program of drug and alcohol testing (336). Work schedule regulations would be analogous as they too imposed requirements for "fitness for duty". The relevance of schedule restrictions to nuclear employee fitness to perform their jobs was explicitly recognized by NRC itself in its policy statement (337) which, although not enforceable, at least constituted a policy conclusion on the regulatory issue.

OSHA Relationship to other Laws

The broad conclusion that may be drawn from this discussion is that where an agency has statutory authority to regulate employee safety and health, or safety or health separately, as a general matter this authority will include authority to regulate work schedules if the nexus between safety and health and the regulatory requirements can be shown. In a specific statutory context, there may be more limited authority and conclusions on the extent of that authority would be drawn from the statutory language, its legislative history, and relevant decisions. In reaching this conclusion, we have considered the comprehensive OSHA Act covering all industries, and a number of industry-specific programs, such as mining and transportation. There are other statutes providing regulatory authority to protect public safety

or health in additional industries: an example is the statute authorizing the Secretary of Transportation to regulate the transportation of hazardous liquids and pipelines facilities (338) These statutes may also provide agency authority overwork schedules of employees.

These remains the issue of the jurisdictional overlap between OSHA's broad employee safety and health coverage and the coverage of other industry-specific statutes relating to employee safety and health Thus, for example, employees of private railroads are covered by OSHA and also by the Railway Safety Act, and possibly by the Hours of service Act. Section 4(b)(I) of the OSHA Act (389) deals with this issue, providing that the OSH Act does not apply "to working conditions of employment with respect to which other Federal agencies... exercise statutory authority to prescribe or enforce standards or regulations affecting occupational safety and health." While the language of this section is not entirely clear, its manifest purpose is to prevent redundant regulation of occupational safety and health, while, at the same time, avoiding any gaps in employee protection. OSHA has issued an interpretative regulation of this provision (340). Many cases have been litigated under this provision (341) At the risk of over-simplification, the following general principles may be stated on the interpretation of section 4(b)(I):

(1)The preemptive effect of section 4(b) (1) takes place only when specific working conditions are regulated by another federal agency. OSHA would not be preempted in an entire industry merely because some working conditions in that industry were regulated by another federal agency (342>. The only industry-wide preemption which has taken place is in the mining industry which is comprehensively regulated under the MSHA Act.

(2)The regulation of working conditions by the other federal agency would be preemptive even where the relevant statute is not directed exclusively to employee safety and health. An example is the Railroad Safety Act which also deals with public safety; however, the statute must intend to include employees in

the class of persons to be protected under it (343)

(3)In order to preempt OSHA, the other federal agency must have "exercised" its statutory authority to protect employees(344). There is disagreement, however, as to what constitutes an adequate "exercise" of authority. Thus, the Review Commission Has disagreed with OSHA and ruled that an FRA "policy statement"that it would not exercise its authority over certain railroad working conditions and expressing a view that OSHA did not apply to those conditions was sufficient to preempt OSHA (34).

It is apparent therefore that it would be necessary to study the statutes and regulations of both OSHA and other federal agencies to determine, in the event of overlapping jurisdiction,which regulations apply. Even after study, the answer may not be apparent, and court decisions sometimes add to the confusion. In order to clarify jurisdictional issues for the public and the agencies themselves, OSHA has entered into a series of agreements with other federal agencies to better define respective jurisdictions. Among the most important of these are the OSHA agreements with MSHA, the Coast Guard and NRC (346).

Fair Labor Standards Act

As discussed, the child labor provisions of FLSA authorize the Department of Labor's Wage and Hour Division to issue regulations respecting the employment of minors 14 to 16 years old to assure that their employment in permissible occupations will not interfere with schooling or with health and well being (347). The Wage and Hour Division has issued regulations which prescribe limitations on the periods and conditions of employment 14 to 16 year old (348). The Division would have authority to amend or replace these regulations consistent with the statute and following mandated notice and comment procedures. However, it does not appear that the Wage and Hour Division would have authority to regulate the hours of employment of other minors. us, FLSA prohibits the employment of minors 16 to 18 years

old "in an occupation" which the Division determines is "particularly hazardous" for employment of minors of these ages and detrimental to their health and well being." (349) The Division's discretion therefore relates to defining the particularly hazardous occupations and not to determining permitted hours of employment. The Wage and Hour Division's regulations on 16 to 18 years old accordingly list "particularly hazardous" occupations (350). For minors under 14, the statute bars any employment (351), except under specific circumstances in agriculture and the entertainment industry (352)

Nor would the overtime provisions of FLSA provide authority for direct regulation of shift schedules. Under the Act, an employer is prohibited from employing workers for more then a 40-hours work week "unless" a premium wage is paid. It follows that if the appropriate time-and-half wage rates are paid, there would be no barrier to employment under FLSA for hours beyond the 40-hour week in any arrangement that is otherwise in accordance with law. This conclusion is underscored by a consideration of the main purpose of the overtime provisions of FLSA, which was to spread the work among more workers (353) While the law had an additional purpose to achieve greater health among workers by limiting excessive work hours and thus providing for more rest and leisure, this further goal was be achieved under the statutory scheme by providing a financial penalty for employers who imposed lengthy hours on the existing work force. Any argument that FLSA authority should be read expansively to allow for direct shift regulation could persuasively be answered by citing the OSHA Act passed 22 years after FLSA, which was expressly designed to protect employee health and which provides clear authority for direct shift regulation. On the other hand, the Wage and Hour Division would have authority to modify its interpretations on "hours worked" and thus indirectly affect work schedules.

Labor Relations Statutes

This paper has considered so far shift regulation under"command and control" type regulatory statutes, which impose direct and enforceable obligations on employers. The Labor Management Relations Act, originally enacted as the National Labor Relations Act in 1935, amended and renamed in 1947, and amended twice since then, provides a regulatory framework for the exercise by employees of collective rights, including relevantly the right to bargain collectively and to enter into collective bargaining agreements (354) These bargaining agreements may, and often do, contain provisions on limitations of hours and shift restrictions, which are enforceable as a matter of contract law through private remedies. The impact of LMRA on these limitations and restrictions is discussed in this section.

Labor - Management Relations Act

LMRA is administered by a five-member National Labor Relations Board and a General Counsel, all appointed by the President with the advice and consent of the Senate (355). The Board (NLRB) performs primarily decisional functions while the General Counsel is assigned the prosecutorial role. (356). The coverage of LMRA is broad, applying to virtually all private employers (357). However, the NLRB, in its discretion, does not exercise its jurisdiction unless a case has a "substantial impact" or commerce, thus excluding smaller employers from its coverage (358).

LMRA grants to employees certain basic rights. These are the right to self-organization; the right to form, join, or assist labor organizations; to bargain collectively through their representatives; of their own choosing to engage in "concerted activities" for the purpose of collective bargaining or "other mutual aid or protection;" and to refrain from any of these activities (359). The LMRA specifies certain conduct by employers and unions which constitute unfair labor practices (360). Alleged unfair labor practices are prosecuted by the general Counsel before the 5-member NAB and enforced in the U.S. courts of appeals (361). The

LMRA also contains detailed procedures for employee elections to select employee collective bargaining representatives who will have exclusive authority to deal with the employer on behalf of employees in the appropriate union (362).

Under the Act, the employer and the union each has an obligation to "bargain collectively" with the other and, a refusal to bargain in "good faith" is an unfair labor practice (363). The bargaining obligation includes an obligation to sign a written agreement after an understanding is reached, if requested by the other party (364). The parties' obligation to bargain in "good faith" relates only to "mandatory" subjects of bargaining. Under the LMRA, mandatory subjects are those concerning "wages hours and other terms and conditions of employment." (365) There is a considerable body of case law on the issue of what subjects are "mandatory" subjects of bargaining types of clauses may be reached voluntarily, apart from the dictates of law,- by parties not covered by LMRA. Once an agreement is reached there are various legal mechanisms for its enforcement. Bargaining agreements typically may be enforced by a party in court (370) and agreements typically contain grievance - arbitration procedures for dealing with contract violations (371). In general, arbitration may be compelled and arbitration awards may be enforced in court. In addition, a party may take economic steps to protect against contract violations (372). In sum the Government does not directly enforce contract terms, but parties themselves may resort to legal measure to enforce their rights under a contract much the same as parties to an ordinary contract resort to the courts to obtain relief for contract violations.

While LMRA covers the bulk of private employees, several other labor-management statutes should be mentioned. The Railway Labor Act (373) governs the labor relations of carriers by railroad and representatives of their employees. Because of the potentially critical impact on the economy of railroad strikes, the Railway Labor Act contains provisions not contained in LRRA relating to the settlement of bargaining disputes through specially

appointed boards, and the use of court-injunctions in some circumstances (374). Like the Railway Labor Act requires carriers and employees to "exert every reasonable effort the make and maintain agreements..." (375). This would parallel to LRRA's obligation to bargain in good faith. This obligation in the Railway Labor Act relates to "rates of pay, rules and working conditions", and while "hours" is not expressly mentioned, the obligation to bargain over hours of employment would be encompassed under "working conditions" (376). The relevant provisions of the Railway Labor Act were made applicable to air by carriers in 1936 (377).

Employees of the Federal Government are covered by a separate labor relations statute, to be discussed below, and State employees may be subject to state statutes (378).

There is a wide range of clauses of collective bargaining agreements relating to hours of work. These have been collected in the Bureau of National Affairs, Collective Bargaining, Negotiation and Contracts,(BNA Guide). According to the BNA survey, virtually all contracts contain hours and overtime provisions, and typical provisions include daily and weekly work schedules, overtime premium pay, distribution of overtime work, and length of lunch and rest periods (380) Many contracts state the length of the workday and workweek and some specify the days of the week on which work may be performed. Management, however,may retain the scheduling right, frequently with a requirement for advance consultation with the Union (381) Thus, for example, the TWA-Transport Workers contract provides for a "basic work cycle" of 6 days of work, 3 days off. In another contract,there is a continuous seven day, four shift operation, with scheduled days off, three fixed shifts and one rotating shift (Bakaert Steel Wire Corp. and Electronic, Electrical Workers)(382).

Some contracts provide specific restrictions on scheduling,such as no split shifts (383) and limits on employees switching from one shift to another (384). The bargaining agreement between National Steel Corp. and Chemical Workers (385) provides that employees are not

permitted to work more than 16 hours within any 24 hour period, except if the employee is awaiting replacement and is willing to stay, or an employee needs two additional hours to "finish" a job.

Various contract clauses deal with overtime, covering both scheduling and premium compensation. Once contract, consolidated Aluminum and Steel Workers (386), limits the amount of overtime of employees. Except in cases of emergency, no employee may be permitted or required to work more than 16 consecutive hours; or 16 overtime hours in a workweek; or more than two consecutive 16-hour work periods; or permitted to work more than 16 hours in any 24-hour period.

In another contract, Wagner Castings Co. and Allied Industrial Workers, no employee may be required to work more than 12 continuous hours and may not be penalized for leaving after that time (387). Another clause states that employees may not be required to work overtime more than 2 Sundays or 3 consecutive Saturdays, or if the employee has valid reasons for not working overtime (388). Other provisions relate to rest periods during regular shifts, with pay (389).

There have been recent press reports of United Automobile Worker ratification of a contract with Chrysler Corporation covering the St. Louis minivan plant (390). Under the agreement, the plant could operate on a 3-shift basis. According to the newspaper accounts, Chrysler would daily have 3 seven-hour shifts, or 2 ten-hour shifts. If the 7-hour shifts were adopted, workers would work 5 days, 7 hours each day, with-occasioned Saturday overtime. In the case of 10-hour shifts, employees could opt for 4 10-hour days, plus Saturday overtime, or for 6 straight 10-hour days for 2 weeks, followed by a week off.

In sum, there are a broad range of possible clauses on shift scheduling which may appropriately be part of the mandatory collective bargaining process.

State Labor Relations Legislation

A number of states have state labor relations statutes(391) For example, the Connecticut Labor Relations Act (392)contains provisions defining the rights of employees (393),provides for unfair labor practices by employers (394), procedures for employee election of representatives (395), and procedures for the handling of unfair labor practices cases(396). In some cases, state labor relations statutes are -applicable only to a specific industry. An example is the California Agricultural Labor Relations Act (397) which also contains provisions on elections and unfair labor practices. In any event, the scope of application of these state labor relations laws depends both on-their language and interpretation and, significantly, on the extent to which they are preempted by the Federal Labor Management Relations Act.

Federal preemption in the field of labor relations has been much litigated and has been the subject of numerous supreme Court decisions. Only certain basic principles will be discussed. The purpose of federal preemption is to avoid duplicative or inconsistent state regulation of conduct regulated by the federal government under the U.S. Constitution's "supremacy" clause. Preemption depends in the first instance on the intent of Congress as expressed in the federal statute. In the case of LMRA, Congress expressly provided that the states were free to regulate with respect to employers over whom the National Labor Relations Board lacks legal jurisdiction, or, in the exercise of its discretion, declines to exercise jurisdiction (398). Otherwise, since Congress has not indicated its intention completely to preempt state regulation, the courts must decide the extent of the preemption.

The Supreme Court has developed basically three tests for deciding whether state regulation is preempted in the field of labor relations (399). Early in the history of the LMRA, the Supreme court applied the tests quite strictly, often finding state regulations preempted (400) more recently, the Court has found preemption inapplicable for a variety of reasons (401) The preemption issue depends on all the circumstances and each preemption case will be

decided on the basis of the specific circumstances involved. Relevant here is that state regulation of labor relations cannot be considered separately from the federal requirements and the preemptive effect of the federal regulatory structure (402).

Government Employees

The Government controls working conditions of its employees directly because of the employer-employee relationship of the federal government and the states to governmental employees. Basically, the government, as employer, acting pursuant to authorizing statutes, determines the working conditions of its employees. Its authority may be limited by these statutes or by other regulatory statutes in so far as they apply to Government employees. (An example is FLSA.) In addition, both the federal and many state governments may have bargaining obligations in relation to representatives of their employees under labor relation statutes specifically applicable to government employees.

This section discusses the legal framework of the determination of hours of work for government employees, treating federal and state employees separately.

Federal Employees

Under federal law, the "head for each Executive agency" is required to "establish a basic administrative work week of 40 hours" for full time employees and require that within that work week work is to be performed "within a period of not more than 6 of any 7 consecutive days." (403) The law further imposes certain limitations on work scheduling, except in cases where the agency head determines that his or her agency operations would "be seriously handicapped in carrying out its functions" or that the costs would be "substantially increased." These limitations are:

(a) assignments to hours of duty are scheduled in advance over periods of not less than 1 week;

(b) the basic" workweek in scheduled on 5 days, Monday through Friday, "when possible", and the 2 days outside the basic workweek are consecutive;

(c) the working hours in each day in the basic workweek are the same;

(d) the basic non-overtime workday does not exceed 8 hours;

(e) the occurrence of workdays does not affect the basic workweek;

(f) "breaks" in working hours of more than I hour may not be scheduled in a basic workday (404).

An important innovation in federal employee work! scheduling took place with enactment of legislation providing for flexible and compressed work schedules for federal employees. This law was originally passed in 1978 (405) and extended several times, most recently in 1982 (406) Under the statute presently in effect, an agency is authorized to establish programs of "flexible schedules" which include:

(a) designated hours during which an employee must be present for work; and

(b) designated hours which an employee may "elect" as the time for his or her arrival or departure "solely... for the purpose of accumulating credit hours to reduce the length of the workweek or another workday" (407).

The head of an agency may cancel all or part of a flexible scheduling program if he or she determines that the program is "substantially disrupting" agency operations or is "incurring additional costs" (408).

The statute also authorizes an agency to establish "programs which use of 4 day workweek or other compressed schedules" (409) The law also provides for excepting an employee from a compressed schedule program, or transferring the employee of the program

could impose "personnel hardship. In addition, the head of agency may decide not to establish or to discontinue a flexible or compressed schedule if it would have an "adverse agency impact" as defined in the statute (410)

The OSH Act does not apply directly to federal and state employees (411). Therefore, OSHA standards and the statute's enforcement provisions are not utilized by the U.S. Department of Labor to enforce safety and health requirements in the federal workplace. However, the OSH Act contains a separate provision, section 19 (412), covering safety and health programs for federal agencies. The section assigns to the head of each federal agency the responsibility to establish and maintain an effective and comprehensive safety and health program which is "consistent"with the standards promulgated by OSHA covering private employees. (413) Several Presidential executive orders have been issued implementing the statutory requirements and covering federal employees (414) and OSHA has issued regulations establishing program policies and procedures for federal agency programs (415) Under these executive orders and regulations, each Federal agency's track OSHA's private industry standards, except where the agency obtains authorization from OSHA requirements to depart from OSHA requirements (416) While generally the individual federal agency enforces its standards, in some circumstances OSHA is authorized to conduct inspections of other federal agencies, to find violations and issue abatement orders. However, no penalties may be assessed. (417) The head of each federal agency is required to report annually to the Secretary of Labor on the status of the agency program (418) and the Secretary of Labor in turn must report to the President, summarizing the individual agency reports and presenting evaluations and recommendations "derived" from those reports(419).

In sum, under OSHA, individual federal agency heads must establish agency safety and health programs, and if OSHA issues requirements for private employers respecting safety and health (as, for example, limitations on hours of work) the heads of the federal agencies would be required to impose similar limitations except to the extent that circumstances differ, as determined by OSHA.

The Fair Labor Standards Act applies to most federal government employees including civilians in the military and employees of the executive, judicial and legislative branches of the federal government (420). Thus, the wages, hours and working conditions set by the federal government for federal employees must meet the minimum wage, overtime, and child labor requirements of the Fair Labor Standards Act. There have been several major proceedings involving violations of the FLSA requirements by the federal government (421).

In 1966, Congress passed the Federal Labor Management and Employee Relations Act (422) establishing a program of labor relations for federal employees. The program is administered by the Federal Labor Relations Authority (423). The basic rights of employees include the right, to join or assist a union, or to refrain from such activity, and relevantly through their own representatives, to "engage in collective bargaining with respect to conditions of employment" (424). However, because the Federal government is the employer, and because Federal employees may not strike to enforce their demands (425) the obligation of the federal agency to bargain with Federal employee unions is defined in a more limited manner than the bargaining obligation of private employers (426). For example, with certain exceptions, the agency's obligation to bargain collectively "may not be inconsistent with any federal law or any government-wide rule or regulation (427). Federal agency's authority to fix hours of work for its employees may be affected by its statutory bargaining obligation. Many bargaining agreements between federal agencies and federal employee union are in effect, and some contain provisions on hours of work of federal employees (428).

State Employees

State Governments and their agencies are authorized to set the hours and working conditions of state employees in accordance with the provisions of state law. State law is applicable to the extent that its not preempted by federal law (429) and does not contravene any specific constitutional prohibition (430) or statutory prohibitions in federal or state law.

The federal OSHA statute does not cover state employees(431) However, in order to qualify for federal approval or financial assistance, a state occupational safety an-health plan for private employees must also cover state (and local) employees "to the extent permitted by its law" with an "effective and comprehensive" safety and health program "as effective as the standards" in the plan covering private employers (432). Twenty seven states and jurisdiction have approved state plan covering private and state and local employees (433). In addition OSHA regulations allow states to develop and obtain approval for plans covering state employees alone and three state have such plans.(434)

Under these laws and regulations, if federal OSHA were to limit the hours and shifts of employees, states with approved plans would be required to do so likewise for both private and state employees in order to remain 'at least as effective" as the federal program. Plans covering only employees must also be "as effective as the private employee program".

The Federal FLSA Act currently applies with some exceptions,to state and local employees. (435) While the child labor provisions apply without change to state employees, FLSA now allows states to grant compensatory time instead of overtime pay under some circumstances for state employees (436). In addition, FLSA contains provisions directed specifically to employees engaged in fire protection and law enforcement activities for state public agencies (437).

The Federal LMMA does not apply to state employees (438). However, a number of state have their own labor relations statutes governing state and local employees imposing certain collective bargaining obligations on the parties (439) An example is the Massachusetts state labor relations act, which includes a requirement that the state bargain with the employee representatives (440). However, like the parallel federal statute, because the Government is the employer, the bargaining obligation is defined more narrowly than under the Federal LMPA applicable to private employees (441).

Footnotes

(1) For example, Safety Appliance Act, 45 U.S.C. I et seq.P.L., as amended.
(2) Hours of Service Act, 45 U.S.C. 61 et seq. 34 Stat. 141 (1907).
(3) Atchison Toneka & Santa Fe Ry. Co. v. U.S., 244 U.S. 336 (1917).
(4) P.L. 89 - 670 (1966); 49 U.S.C. 1655(e) (2) 49 U.S.C. 102 (Dept of Transportation); 49 U.S.C. 103 (FederalRailroad Administration).
(5) P.L. No. 91-169 (1969); Federal Railroad Safety Authorization Act of 1970, F.L. No. 94-348; Rail Safety Improvement Act of 1988, F.L. No. 100-342; See 49 C.F.R. Part 228, Appendix A.
(6) 49 C.F.R. Part 228, "Hours of Service of Railroad Employees.
(7) 49 C.F.R. Part 228, Appendix A.
(8) 45 U.S.C. 61(a).
(9) 45 U.S.C. 61(b) (2).
(9A) 49 C.F.R Part 228, Appendix A.
(10) 45 U.S.C. 62(a) (1).
(11) 45 U.S.C. 62(a) (2).
(12) 45 U.S.C. 62(b) (1990 pocket part).
(13) 45 U.S.C. 61(b) (3).
(14) 45 U.S.C 62(c).
(15) 45 U.S.C. 62(a) (3).
(16) 45 U.S.C. 62(a) (4).
(17) 49 C.F.R. Part 228, Subpart C.
(18) 45 U.S.C. 63(a) and 1990 pocket part.
(19) 45 U.S.C. 63(c).
(20) 45 U.S.C. 64.
(21) 45 U.S.C. 65, 66; 39 Stat. 721-2 (1916).
(22) 45 U.S.C 65.
(23) See discussion below, pp. _____
(24)
(25) 45 U.S.C. 64.
(26) 45 U.S.C. 64.
(27) 45 U.S.C. 65.
(28) 45 U.S.C. 65.
(29) Below, pp. _____
(30) F.L. 100-34 (1988), 45 U.S.C. 64a.
(31) 49 C.F.R. Part 209, Appendix A ("Railroad Safety Enforcement Procedures"
(32) 45 U.S.C. 64(a) (1).
(33) P.L. No. 100-342 (1988); 45 U.S.C. 64A.
(34) Below pp. _____
(35) 45 U.S.C. 64(a) (1).
(36) 45 U.S.C. 64(a) (1). Federal Claims Collection Act, P.L. No. 89-508 (1966), as amended.
(37) 45. S.C. 64(a) (2).
(38) 49 C.F.R. Part 209, App. A.
(39) 49 C.F.R. Part 209, App. A.
(40) 45 U.S.C. 432(a).
(41) 49 C.F.R. 211.47 and 216.21-27.
(42) 49 C.F.R. PART 209, App. A.
(43) United Transportation Union v. Lewis, 699 F.2d 1109 (C.A. 5, 1983).
(44) P.L. 91-458 (1970), 45 U.S.C. 421 et seq.

(45) Rules issued by FRA under the Railway Safety Act appear at 49 CFR Parts _____. They pertain primarily to equipment safety.
(46) See below, pp.
(47) P.L. 98-554 (1984); 49 U.S.C. 2501 et seq. The subject of motor carrier safety is fully treated in Gearing up for Safety, OTA-SET-382, September, 1988.
(48) 49 U.S.C. App. 2501.
(49) 49 U.S.C. App. 2503.
(50) 49 U.S.C. App. 2503(2).
(51) 49 U.S.C. App. 2503(2) (3). 1 (51A) 49 U.S.C. App. 2505(a) (3) and (4)
(52) 49 U.S.C. App. 102, 104.
(53) 49 U.S.C. App. 2505(C) (1).
(54) 49 U.S.C. App. 2505(d).
(55) 49 U.S.C. App. 2505(d).
(55) 49 U.S.C. App. 2505(g).
(56) 49 U.S.C. App. 2505(d).
(57) 49 U.S.C. App. 2504.
(58) 49 U.S.C. App. 2509(e).
(59) P.L. 97-424 (1983) 49 U.S.C. App. 2301 et seq.
(60) Brock v. Roadway Express, 481 U.S. 252 (1985).
(61) 49 C.F.R. Part 395. These were issued in 1968, 33 Fed. Reg. 19,758, under earlier safety statutes.
(62) 49 C.F.R. 395.15.
(63) P.L. No. 100 - 690, 9103, 9104 (1988), set out as note to 49 U.S.C. App. 2505.
(64) P.L. No. 97-424 (1983) 49 U.S.C. App. 2301 et seq.
(65) P.L. No. 99 - 570 (1986); 49 U.S.C. App. 2701 et seq. FHWA has issued a variety of motor carrier safety regulations. These are listed in the 1988 OTA Report, page 60.
(66) 49 C.F.R. 395.3.
(67) 49 C.F.R. 395.3.
(68A) 49 C.F.R. 395.2.
(68) 49 C.F.R. 395.11. (69) 49 C.F.R. 395.10.
(70) 49 C.F.R. 395.12.
(71) 49 C.F.R. 395.8.
(72) 49 C.F.R. 395.8.
(73) 49 C.F.R. 395.15.
(73A) 49 U.S.C. 49 App. 2509, 2511.
(74) 49 U.S.C. 521.
(75) 49 U.S.C. 521.
(76) 49 C.F.R. Part 386.
(77) 49 U.S.C. 521(b) (4).
(78) 49 U.S.C. 521(b) (5).
(79) 49 U.S.C. 521(b) (6)
(80) 49 C.F.R. 395.13.
(81) Below, pp.
(82) 49 U.S.C. 2507, 2508.
(83) 49 U.S.C. 2301 et, seq.
(84) 49 U.S.C. U.S.C. 2302-4.
(85) 49 U.S.C. 2510(b).
(86) OTA - SET - 382, September, 1988.
(87) 49 U.S.C. App. 1901, 1902.
(88) 49 U.S.C. App. 1903, 1906.
(89) 49 App. U.S.C. 1906.
(90) Gearing up for Safety, p. 62.

(91) 49 U.S.C. App. 1421 (a) (5) (1990 pocket part).
(92) P.L. No. 85-726 (1958).
(93) 49 U.S.C. App. 102, 106.
(94) 49 U.S.C. App. 106(b).
(95) 5 U.S.C. 553.1
(96) 14 C.F.R. 11.1.
(97) 14 C.F.R. Part 121, Subparts F through S.
(98) 49 U.S.C. App. 1471 et seq.
(99) 14 C.F.R. Part 13 ("Investigative and Enforcement Procedures").
(100) 49 U.S.C. App. 1472, 1523.
(101) 14 C.F.R. Part 121, Subparts P through S.
(102) 14 C.F.R. Part 121, Subpart Q.
(103) 14 C.F.R. Part 121, Subpart Q.
(104) 14 C.F.R. Part 14, Subpart R.
(105) 14 C.F.R. Part 121, Subpart 5.
(106) 49 U.S.C. App. 1471, and 1990 pocket part.
(107) 49 U.S.C. App. 1472, and 1990 pocket part.
(108) 49 U.S.C. App. 1482(b) and 1990 pocket part.
(109) 49 U.S.C. App. 1482(a) and 1990 pocket part.
(110) 14 U.S.C. App. 1481.
(111) 14 C.F.R. Part 13 ("Investing and Enforcement Procedures").
(112) 49 U.S.C. APF. 1486.
(112) 49 U.S.C 1486.
(113) 49 U.S.C. App. 1485(a).
(113A) To be added.
(114) Below, pp. _____
(115) Santa Monica Airport Ass'n v. City of Santa Monica, 481 F. Supp. 927 (D.C. Cal, 1979), aff'd 647 F. 2d 3, 649 F. 2d 100 (9th Cir.).
(116) McEntire v. Forte's Estate, 463 S.W. 2d 491 (Tex. Civ. App. 1971).
(117) P.L. No. 89-670 (1966), 49 U.S.C. 108.
(118) 46 U.S.C. 2103.
(119) 46 U.S.C. 8101-5.
(120) 46 U.S.C. 8104.
(121) 46 U.S.C. 8104(a).
(122) 46 U.S.C. 8104(b).
(123) 46 U.S.C. 8104(c) (d).
(124) 46 U.S.C. 8104.(h).
(125) See, for example, 46 U.S.C. 8104(1).
(126) 46 U.S.C. 8104(e).
(127) 46 U.S.C. 8104(f). 15 C.F.R. 15.710.
(128) 46 U.S.C. 3301-18, 3305(a) (4)
(129) 46 U.S.C. 3307-13; 46 U.S.C. Chapter 77 - ("Suspension and Revocation").
(130) 46 U.S.C. 3307-13, 46 U.S.C. Chapter 77.
(131) U.S.C. 3318(a). 46 U.S.C. 8104(i) and (j).
(132) For example see 3318(b).
(133) 33 C.F.R. Subpart 1.07.
(134) Below, pp. _____
(135) 52 Stat. 1060, 29 U.S.C. 201 et seq.
(136) 29 U.S.C. 206.
(137) 29 U.S.C. 207.
(138) 29 U.S.C. 212.
(139) 29 U.S.C. 206(d).

(140) 312 U.S. 100 (1941).
(141) P.L. No. 101-157.
(142) P.L. No. 101-157.
(143) See 29 U.C. 206(a); 207(a) (1).
(144) P.L. No. 89-601 (1966); 29 U.S.C. 203(n) and (s) 206(a); 207(a) (1)
(145) See, e.g., F.L. No. 101-157, (1989), amending 29 U.S.C. 203(s).
(146) P.L. No. 98-259, 6(a), 13(e), amending 29 U.S.C. 203(d) and (e).
(147) San Antonio Transit v. Garcia, __ U.S. ___ (1983).
(147A) P.L. No. 99-150 (1985), amending 207. See 29 C.F.R. Part 553 ("Application of the Fair Labor Standards Act to Employees of State and Local Governments").
(148) 29 U.S.C. 213(a).
(149) 29 U.S.C. 213(b).
(150) 29 U.S.C. 213(c).
(151) For example, 29 C.F.R Part 776 ("Interpretative Bulletin on the General Coverage of the wage an hours provisions of the Fair Labor Standards Act of 1938") 29 C.F.R. Part 786 (Miscellaneous Exemptions"); (defining statutory exemption, 29 C.F.R. Part 541 for employee employed in "bona fide executive, administrative, or professional capacity")
(152) See 29 U.S.C. 213(b) (l),(2) and (3).
(153) See, below, pp. _____
(154) 29 U.S.C. 204(a).
(155) 29 U.S.C. 204(l).
(156) 29 U.S.C. 215, 216, 217, 218.
(157) 29 U.S.C. 216(a).
(158) 29 U.S.C. 216(e).
(159) 29 U.S.C. 212(a).
(160) 29 U.S.C. 212(c).
(161) 29 U.S.C. 203(l).
(162) 29 U.S.C. 203(L); 29 C.F.R. 570. 117-119 ("General Statements Interpretation of Child Labor Provisions of FLSA")
(163) 29 C.F.R. Part 570, Subpart C ("Employment of Minors Between 14 and 16 Years of Age")
(164) 29 C.F.R. 70.35a.
(165) 29 C.F.R. 570.35A.
(166) 29 U.S.C. 215(A) (4); 216(a).
(167) 29 U.S.C. 216(e); 29 C.F.R. Part 579 L("Child Labor Violations -- and Monetary Penalties") Part 580 (Civil Penalties for Child Labor Violations -- rules of Practice for Administrative Proceedings)
(168) 29 U.S.C. 206.
(169) 29 U.S.C. 207.
(170) 29 C.F.R. Part 785 ("Hours Worked:).
(171) 29 C.F.R. 785. 1 and 2 quoting Skidmore V. Surft 323 U.S. 134 (1944).
(172) 29 C.F.R. 785. 2.
(173) [ADD]
(174) 5 U.S.C. 553.
(175) 29 C.F.R. 85.7, citing, among other cases Tennessee Coal-Iron, and Railroad Co. Muscoda Local 123, 321 U.S. 590 (1946).
(176) 29 C.F.R. Part 785, Subpart C ("Application of Principles")
(177) 29 C.F.R. 785.20 and 21.
(178) 29 C.F.R. 785.22(a).
(179) 29 C.F.R. 785. 22(b).
(180) 29 C.F.R. 785.22(b).
(181) Hultgren v. County of Lancaster, 913 F.2d 498 (8th Cir. 1990).

(182) 29 U.S.C. 216, 217.
(183) 29 U.S.C. 213 (b) (1). The relevant section of the Motor Carrier Act is 49 U.S.C. 3102. See discussion above, pp.____
(184) 29 U.C.C. 213 (b) (2). The jurisdiction of the Secretary of Transportation is defined in Title 49, Chapter 105, Sub-Chapter I;: see discussion above, pp.
(185) 29 U.S.C. 213 (b) (3). These air carrier employees are subject to Title II of the Railway Labor Act, 45 U.S.C. 181 et. seq.
(186) 29 C.F.R. Part 782; 782.3.
(187) U.S. Constitution, Article, VI 2.
(188) See for example Silkwood v. Kerr-McGee Corporation, 464 U.S. 238 (1984); L. Tribe, American Constitutional Law, 6-23 through 6-28 (1978).
(189) 29 U.S.C. 218.
(190) Discussed below, pp.____
(191) P.L. No. 93-438 (1974); 42 U.S.C. U.S.C. 5841 et seq.
(192) 42 U.S.C. 200.
(193) 68 Stat. 921 (1954)
(194) 42 U.S.C. 2201(b).
(195) 10 C.F.R. Part 55.
(196) 10 C.F.R. Part 26.
(197) 42 U.S.C. 2282.
(198) 42 U.S.C. 2236.
(199) 10 C.F.R. Part 2 and Appendix c (Enforcement Regulations).
(200) 47 Fed. Reg. 23836 (1982), revising 47 Fed. Reg. 7352 (1982).
(201) 47 Fed. Reg. 23,836 (1982).
(202) See discussion below, pp. ____
(203) Discussion above, pp. ____
(204) Michigan, Act 154 I. 1964, Commerce clearing House, State labor Law Reports, Michigan 48,000.
(205) P.A. 97, I. 1982.
(206) CCH, Michigan 48,004.
(207) CCH, Michigan 48,005.
(208) 48,005.
(209) 48,005.
(210) 48,005.
(211) 48,016.
(212) Secs. 480.12 and .13 of compiled Laws of 1970.
(213) CCH, Michigan, 44.530.
(214) CCH, Michigan, 45,000.
(215) See for example, Connecticut Wage Law, Connecticut General statutes,Ch. 558, Sections 31-58-70K CCH, State labor Laws, Connecticut 48000. Child Labor,Connecticut General Statutes, Secs. 29-118, 119, CCH State Labor Laws, Connecticut 45001, Motor Carrier and Railroad Workers, Connecticut General Statutes, Sec. 14-307; 16i-l88, CCH, State labor Laws, Connecticut 14,535; Handicapped Workers, workers on public works, Connecticut General Laws, Sec. 31-12, 3l-18; 31-56, 31-57, CCH, State Labor Laws, 44; ,525; 535.
(216) N.Y. State Code, Title 10, 405.4(a) (6).
(217) 405.4(a) (6) (i).
(218) 405.4(a) (6) (i) (a) (b) (c)
(219) 405.4(a) (6) (ii)
(220) 405.4(a) (6) (ii) (c).
(221) 405.4(a) (6) (iii).
(222) For example, Michigan, Senate Bill No. 584, Oct. 10, 1989.

(223) [ADD CITE]
(224) Brook v. Roadway Express, ___ U.S.___ (1987)
(225) U.S. Constitution, Amendments V and XIV, Civil Rights Act of 1964, 42 U.S.C. 2000e-2.
(226) ADD CITE
(227) ADD CITE
(228) Discussion, above pp. ___
(229) 29 U.S.C. 651 et seq.
(230) For example, Railroad Safety Act, ___ U.S.C. ____
(231) P.L. No. 91-596 (1970).
(232) 29 U.S.C. 651 (B).
(233) P.L. No. 91-596,
(234) 29 U.S.C. 652(5).
(235) 29 U.S.C. 652(5), 668.
(236) Bureau of Labor Statistics, 1989 Survey.
(237) 29 U.S.C. 654.
(238) 29 U.S.C. 666(e).
(239) OSHA health standards appear mostly in 29 C.F.R. 1000 et seq.
(240) 29 U.S.C. 655.
(241) Mintz, OSHA: History, Law and Policy 96-129.
(242) See, for example, Asbestos Information Ass'n v. OSHA727 F.2d 415 (5th Cir. 1984)
(243) 29 U.S.C. 655(6).
(244) Executive Order No. 12,291 reprinted, 3 C.F.R. 127 (1981).
(245) American Textile Mf'rs. Inst. v. Donovan, 452 U.S. 490 (1981).
(246) National Grain & Feed Ass'n v. OSHA, 866 F.2d 1019 (5th Cir. 1989).
(247) 42 U.S.C. 4321-61.
(248) 5 U.S.C. 601-12.
(249) 44 U.S.C. 3501-20.
(250) Mintz, OSHA: History, Law and Policy 60-95.
(251) 29 U.S.C. ,655(f).
(252) See, for example, Industrial Union Dep't v. Hodason,499 F.2d 467 (D.C. Cir. 1974).
(253) For example, Synthetic organic Chemical Mfrs. Ass'n v. OSHA, 506 F.2d 385 (3D Cir. 1974).
(254) Industrial Union Dept. v. Amer. Petroleum Institute,448 U.S. 607 (1980)
(255) 29 U.S.C. 671.
(256) American Textile Mfrs. Inst. v. Donovan, 452 U.S. 490 (19810.
(257) 29 U.S.C. 655(b) (5).
(258) Public Citizen Health Research Group v. Auchter, 702 F.2d 1150 (D.C. Cir. 1983.)
(259) ADD CITE
(260) Public Citizens' Health Research Group v. Brock, 823 F.2d 626 (D.C. Cir. 1987).
(261) See, Public Citizen Health Research Group v. Tyson, 796 F.2d 1479 (D.C. Cir. 1986).
(262) For example, Building and Construction Trades Dept. v. Secretary, 838 F.2d 1258 (D.C. Cir. 1988).
(263) United Auto Workers v. Pendergrass, 878 F.2d 389 (D.C. Cir. 1989.
(264) Marshall v. Barlow's Inc., 436 U.S. 307 (1978).
(265) 29 U.S.C. 657-658.
(266) ADD CITE
(267) 29 U.S.C. 659-60.
(268) 29 U.S.C. 662.
(270) Collins and Gombar eds., Occupational Safety and Health Law, First Supp, 1987-88, 59-66.
(271) 29 U.S.C. 660(c).

(272) [Omitted]
(273) 29 U.S.C. 654(a) (1).
(274) National Realty & Construction Co. OSHRC 489 F.2d 1257 (D.C. Cir. 1973)
(275) Kastalon Inc., 12 OSHC 1928 (Rev. Comm'n 1986).
(276) 29 U.S.C. 654(a) (1).
(277) For example, Macma Copper v. Marshall, 608 f.2D 373 (9TH Cir. 1979).
(278) ADD CITE.
(279) 29 U.S.C. 667.
(280) 29 U.S.C. 667.
(281) 29 U.S.C. 667(c).
(282) For example, Illinois v. Chicago Magnet Wire Corp., 534 N.E.2d 356 (Illinois Sup. Ct. 1989).
(283) Below, pp. _____
(284) 41 U.S.C. 35-45.
(285) 41 U.S.C. 351-58.
(286) 40 U.S.C. 333.
(287) 33 U.S.C. 941.
(288) 29 U.S.C. 653(B) (2).
(289) 29 U.S.C. 655(a).
(290) 41 U.S.C. 37.
(291) P.L.. No. 95-164 (1977); 30 U.S.C. 801 et seq.
(292) P.L. No. 91-173 (1969).
(293) 30 U.S.C. 803.
(294) 30 U.S.C. 811.
(295) 30 U.S.C. 817.
(296) 30 U.S.C. 813.
(297) Donovan v. Dewey, __ U.S. ____
(298) 30 U.S.C. 955.
(299) 30 U.S.C. 953.
(300) 30 U.S.C. 811(a).
(301) 30 U.S.C. 811(d)
(302) 30 U.S.C. 811(d).
(303) 29 U.S.C. 65(3) (b) (1).
(304) Below, pp. _____
(305) [ADD CITE]
(306) P.I. No. 91-458 (1970, 45 U.S.C. 421 et, seq., and 1990 pocket part.
(307) 45 U.S.C. 421.
(308) 45 U.S.C. 431.
(309) 45 U.S.C. 431(a).
(310) 45 U.S.C. 431(a).
(311) 45 U.S.C. 431(e) (f); 5 U.S.C. 706 et, seq.
(312) 49 U.S.C. 431(b); 49 C.F.R. Part 5.
(313) See, for example, 49 C.F.R. Part 215 (Railroad freight car safety standards) Part 221 (Rear-end marking devices - passenger, commuter and freight trains) Part 225, (Railroad,accident incidents: reports, classifications, and investigations).
(314) 49 C.F.R. Part 219.
(315) 45 U.S.C. 437(a) (1990 pocket part).
(316) 45 U.S.C. 438 (1990 pocket part).
(317) 45 U.S.C. 432(a) (b).
(318) 45 U.S.C. 432(e).
(319) 49 C.F.R. Part 209, and Appendix A.
(320) 45 U.S.C. 434.

(321) 45 U.S.C. 434.
(322) 49 U.S.C. 435.
(323) 45 U.S.C. 436.
(324) 49 C.F.R. Part 212.
(325) See above, pp. ____
(326) 49 U.S. App. 2305(a).
(327) See above pp. ____
(328) [add cite]
(329) 49 U.S.C. App. 1421(a) (5) (6)
(330) See above pp. ____
(331) 46 U.S.C. 2103.
(332) See above, pp. ___
(333) 46 C.F.R. Part 15.
(334) [Add cite]
(335) 42 U.S.C. 2201 (b).
(336) 10 C.F.R. Part 26.
(337) Above, pp. ___
(338) 49 U.S.C. App. 2001 et. seq.
(339) 29 U.S.C. 653(b) (1).
(340) 29 C.F.R. Part 1955.
(341) See, among many others, U.S Air, Inc, v. OSHRC, 689 F.2d 1191 (4th 1982) (FAA regulations).
(342) Southern Railway v. OSHRC, 539 F.2d 335 (4th Cir.), cert. denied,429 U.S. 99 (1976).
(343) Finebera Packing Co. 1 OSHC 1598 (Rev. Comm'n 1974)
(344) Southern Pacific Transportation Co. v. Usery, 539 F.2d 386 (5th Cir 1976), cert. denied, 434 U.S. 874 (1977).
(345) Consolidated Rail Corp., 10 OSHRC 1577 (Rev. Comm.1982).
(346) [Add cite]
(347) 29 U.S.C. 203.
(348) 29 C.F.R. 570'. 35.
(349) 29 C.F.R. Part 570, Subpart E.
(350) 29 C.F.R. Part 570.
(351) 29 U.S.C. 203(f).
(352) 29 U.S.C. 213(c).
(353) See Finkin, Goldman and Summers, Legal Protection for the Individual Employee 78.
(354) 29 U.S.C. 141 et. sea., P.L. 80-101 (1947), amended P.L. No. 86-257 (1959) and P.L. No. 93-360 (1974)
(355) 29 U.S.C. 153.
(356) 29 U.S.C. 153.
(357) 29 U.S.C. 152.
(358) Bartosic and Hartley, Labor Relations in the Private Sector, 2d ed. 25-30.
(359) 29 U.S.C. 157.
(360) 29 U.S.C. 158.
(361) 29 U.S.C. 160.
(362) 29 U.S.C. 159.
(363) 29 U.S.C. 158(a) (5), 158(b) (3); 1-8(d).
(364) 29 U.S.C. 158(d).
(365) NLRB v. Borq-Warner Corp., 356 U.S. 342 (1958)
(366) Bartosic and Hartley, p. 292.
(367) NLRB v. Bora - Warner Corp, supra
(368) 29 U.S.C. 158(d).
(369) Sec, for example, 29 U.S.C. 171 et. seq. (national emergency strikes; of labor disputes in the healthcare industry).

(370) Sec. 301, Labor-Management Relations Act
(371) Bureau of National Affairs, Collective Bargaining Negotation and Contracts.
(372) Bartosic and Hartley, Chapter, "Collective Bargaining Administration of the Agreement," pp. 349-93
(373) 45 U.S.C. 151 et. seq.
(374) 45 U.S.C. 154-160.
(375) 45 U.S.C. 152, First.
(376) [ADD CITE]
(377) 49 Stat. 1189 (1936), 45 U.S.C. et. seq.
(378) See below, pp. _____
(379) [Ommitted]
(380) BNA Guide, 57:1.
(381) BNA Guide, 57:11.
(382) BNA Guide, 57:12.
(383) BNA Guide, 7:14. (N.Y. Realty Advisory Board and Service Employees).
(384) BNA Guide, 57:14 (Chicago Photographic Ass'n and Graphic Communications Union).
(385) BNA Guide, 57:14.
(386) BNA Guide, 57:125.
(387) BNA Guide, 57:125.
(388) BNA Guide, 57:125.
(389) BNA Guide, 57:551-4.
(390) N.Y. Times, 1/20/90, D1.
(391) These are collected Commerce Clearing House, Labor law Reporter, State, Laws 1 CCH Reporter)
(392) Conn. General Statutes, 1958 Revision 31-101 throuogh 111, CCH Reporter, State Laws, 47,000. (393) Sec. 31-104.
(394) Sec. 31-105.
(395) Sec. 31-106.
(396) Sec. 31-107.
(397) Third Extraordinary Session, I. 1975, amended, ch.1292, I. 1980; CCH, Reporter, 47,400.
(398) 29 U.S.C. 164(c).
(399) San Diego Building Trades Council v. Garmon, 359 U.S. 236 (1959) ("arguably protected arguably prohibited" test) Local 76, Machinists v. Wisconsin Employment Relations Comm'n 427 U.S. 132 (1976) (conduct permitted by federal law); Allis-Chelmers v. Lueck, 105 S.Ct. 1904 (1985) (premption inder 301 of the Federal Statute).
(400) San Diego Building Trades Council v. Garmon,
(401) For example Belknap v. Hale, 463 U.S. 491 (1983).
(402) See Teamsters v. Oliver 358 U.S. 283 (1959) (state statute held preempted because it dictated the terms of a collective bargaining agreement).
(403) 5 U.S.C. 6101 (a)(2).
(404) 5 U.S.C. 6101 (a)(3).
(405) P.L. 95-390 (1978).
(406) P.L. 97-221 (1982): 5 U.S.C. 6121 et.seq, (1990 pocket part).
(407) 5 U.S.C. 6122 (a) (1990 pocket part).
(408) 5 U.S.C. 6122 (b) (1990 pocket part); 5 U.S.C. 6131 (1990 pocket part).
(409) 5 U.S.C. 6127 (a) (1990 pocket part).
(410) 5 U.S.C. 6131 (a) (1990 pocket part).
(411) 29 U.S.C. 652(5).
(412) 29 U.S.C. 668.
(413) 29 U.S.C. 668(a).

(414) [ADD CITE]
(415) 29 C.F.R. Part 1960.
(416) 29 C.F.R. 1960 ____
(417) 29 C.F.R. 1960, ____
(418) 29 U.S.C. 668(a) (5)
(419) 29 U.S.C. 668(b).
(420) 29 U.S.C. 203(1) (2)
(421) [ADD CITE]
(422) 5 U.S.C. 7101 et. seq.
(423) 5 U.S.C. 7104.
(424) 5 U.S.C. 7102.
(425) 18 U.S.C. 1819.
(426) 5 U.S.C. 7106, 5 U.S.C. 7117.
(427) 5 U.S.C. 7117 (a) (1) ad (2).
(428) See, for example, [ADD]
(429) Discussion above, pp.
(430) See, for example Loudermill [ADD CITE].
(431) 29 U.S.C. 652(5).
(432) 29 U.S.C. 667(c) (6).
(433) 29 C.F.R. Part ____
(434) 29 C.F.R. Part ____
(435) 29 U.S.C. 203(e) (2) (C).
(436) 29 U.S.C. 207(o).
(437) 29 U.S.C. 207(K).
(438) 29 U.S.C. 152(2).